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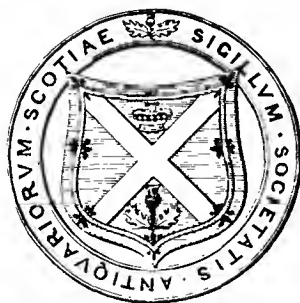
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PROCEEDINGS

OF THE

Society of Antiquaries of Scotland

SESSION
MCMXLIII.-MCMXLIV.



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L A W S

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND.

INSTITUTED NOVEMBER 1780 AND INCORPORATED BY
ROYAL CHARTER 6TH MAY 1783.

(Revised and adopted November 30, 1901.)

1. The purpose of the Society shall be the promotion of ARCHÆOLOGY, especially as connected with the investigation of the ANTIQUITIES AND HISTORY OF SCOTLAND.

2. The Society shall consist of Fellows, Honorary Fellows, Corresponding Members, and Lady Associates.

3. Candidates for admission as Fellows must sign the Form of Application prescribed by the Council, and must be proposed by a Fellow and seconded by two members of the Council. Admission shall be by ballot.

4. The Secretaries shall cause the names of the Candidates and of their Proposers to be inserted in the billet calling the Meeting at which they are to be balloted for. The Ballot may be taken for all the Candidates named in the billet at once: but if three or more black balls appear, the Chairman of the Meeting shall cause the Candidates to be balloted for singly. Any Candidate receiving less than two-thirds of the votes given shall not be admitted.

5. Honorary Fellows shall consist of persons eminent in Archæology, who must be recommended by the Council, and balloted for in the same way as Fellows: and they shall not be liable for any fees of admission or annual subscriptions. The number of Honorary Fellows shall not exceed twenty-five.

6. Corresponding Members must be recommended by the Council and balloted for in the same way as Fellows, and they shall not be liable for any fees of admission or annual subscriptions.

7. Ladies who have done valuable work in the field of Archæology may be admitted as Lady Associates. The number of Lady Associates shall not exceed twenty-five. They shall be proposed by the Council and

balloted for in the same way as Fellows, and shall not be liable for any fees of admission or annual subscriptions.

8. Before the name of any person is added to the List of Fellows, such person shall pay to the funds of the Society Two Guineas as an entrance fee and One Guinea for the current year's subscription, or may compound for the entrance fee and all annual subscriptions by the payment of Twenty Guineas at the time of admission. Fellows may compound for future annual subscriptions by a single payment of Fifteen Guineas after having paid five annual subscriptions; or of Ten Guineas after having paid ten annual subscriptions.

9. The subscription of One Guinea shall become due on the 30th November in each year for the year then commencing: and if any Fellow who has not compounded shall fail to pay the subscription for three successive years, due application having been made for payment, the Treasurer shall report the same to the Council, by whose authority the name of the defaulter may be erased from the List of Fellows.

10. Every Fellow not being in arrears of the annual subscription shall be entitled to receive the printed Proceedings of the Society from the date of election.

11. None but Fellows shall vote or hold any office in the Society.

12. Subject to the Laws and to the control of the Society in General Meetings, the affairs of the Society shall be managed by a Council elected and appointed as hereinafter set forth. Five Members of the Council shall be a quorum.

13. The Office-Bearers of the Society shall consist of a President, three Vice-Presidents, two Secretaries for general purposes, two Secretaries for Foreign Correspondence, a Treasurer, two Curators of the Museum, a Curator of Coins, and a Librarian. The President shall be elected for a period of five years, and the Vice-Presidents for a period of three years. One of the Vice-Presidents shall retire annually by rotation and shall not again be eligible for the same office until after the lapse of one year. All the other Office-Bearers shall be elected for one year and shall be eligible for re-election.

14. In accordance with the agreement subsisting between the Society and the Government, the Board of Manufactures (now the Board of Trustees) shall be represented on the Council by two of its Members (being Fellows of the Society) elected annually by the Society. The Treasury shall be represented on the Council by the King's and Lord Treasurer's Remembrancer (being a Fellow of the Society).

15. The Council shall consist of the Office-Bearers, the three representative Members above specified, and nine Fellows, elected by the Society.

16. Three of the nine elected Members of Council shall retire annually by rotation, and shall not again be eligible till after the lapse of one year. Vacancies among the elected Members of Council and Office-Bearers occurring by completion of term of office, by retirement on rotation, by resignation, by death or otherwise, shall be filled by election at the Annual General Meeting. The election shall be by Ballot, upon a list issued by the Council for that purpose to the Fellows at least fourteen days before the Meeting.

17. The Council may appoint committees or individuals to take charge of particular departments of the Society's business.

18. The Annual General Meeting of the Society shall take place on St Andrew's Day, the 30th of November, or on the following day if the 30th be a Sunday.

19. The Council shall have power to call Extraordinary General Meetings when they see cause.

20. The Ordinary Meetings of the Society shall be held on the second Monday of each month, from December to May inclusive.

21. Unless special arrangements to the contrary have been made, copyright of *The Proceedings* and of all papers printed therein, as well as of all illustrations, shall belong to the Society. This provision shall not apply to illustrations made from blocks borrowed from outside sources.

22. Every proposal for altering the Laws must be made through the Council; and the Secretaries, on instructions from the Council, shall cause intimation thereof to be made to all the Fellows at least one month before the General Meeting at which it is to be determined on.

Form of Special Bequest.

I, A. B., do hereby leave and bequeath to the Society of Antiquaries of Scotland incorporated by Royal Charter, my collection of _____ and I direct that the same shall be delivered to the said Society on the receipt of the Secretary or Treasurer thereof.

General Form of Bequest.

I, A. B., do hereby leave and bequeath to the Society of Antiquaries of Scotland incorporated by Royal Charter, the sum of £ _____ sterling [*to be used for the general purposes of the Society*] [or, *to be used for the special purpose or object of* _____], and I direct that the said sum may be paid to the said Society on the receipt of the Treasurer for the time being.

LIST OF THE FELLOWS, CORRESPONDING MEMBERS, HONORARY FELLOWS, ETC.

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND,

NOVEMBER 30, 1944.

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HIS MAJESTY THE KING.

- | | |
|--|---|
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| 1931. AGNEW, Rev. HUGH M., M.A., Minister of Hill Presbyterian Church, The Manse, Surbiton Street, Port Elizabeth, South Africa. | 1944. ANDERSON, WILLIAM SCOTT, F.I.F.M., 49 Northfield Avenue, Edinburgh, 8. |
| 1933.*AILSA, The Most Hon. The MARCHIONESS OF, Culzean Castle, Maybole. | 1941. ANDERSON, Rev. WILLIAM WHIFF, M.C., M.A., D.D., 12 Garscube Terrace, Edinburgh, 12. |
| 1943.*AITCHISON, STEPHEN CHARLES DE LANCEY, Coupland Castle Wooler Northumberland. | 1936. ANDREW, Rev. HARRY, Minister of Gilfillan Memorial Church, Gilfillan Manse, Ancrum Road, Dundee. |
| 1942.*AITCHISON, Sir WALTER DE LANCEY, Bart., M.A., Coupland Castle Wooler, Northumberland. | 1921. ANGUS, WILLIAM, Keeper of the Registers and Records of Scotland, H.M. General Register House, Edinburgh, 2. |
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| 1936. ALLAN, E., F.R.C.S.Ed., West View, Rose Avenue, Elgin. | 1910. ANNAN, J. CRAIG, Glenbank, Lenzie. |
| 1939. ALLAN, Miss ELIZABETH H. M., M.A., Hessilden, Meukleriggs, Paisley. | 1931. ARBUCKLE, WILLIAM F., M.A. (Edin. and Oxon.), H.M.I.S., 1 Murrayfield Gardens, Edinburgh, 12. |
| 1930. ALLAN, Mrs H. M., 10 Ainslie Place, Edinburgh, 3. | 1931. ARCHER, Sir GILBERT, St Ola, Park Road, Leith, Edinburgh, 6. |
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| 1926. ALLAN, WILLIAM, M.B.E., Rhindmuir House, Baillieston. | 1942.*ARMATTON, R. L. G., F.L.S., F.Z.S., F.R.A.I., 7 Northland Road, Londonderry. |
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| 1925. ANDERSON, ALEXANDER HUTTON, M.A., Leny House, Muthill, Perthshire. | |

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1935. BRYDON, R. S., M.A. (Hons.), Ph.D., Breadalbane Academy, Aberfeldy, Perthshire.

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- 1921.*CALDER, CHARLES S. T., A.R.I.A.S., Assistant Architect, Royal Commission on Ancient Monuments of Scotland, 27 York Place, Edinburgh, 1.
1930. CALDER, WILLIAM M., M.A., LL.D., F.B.A., Professor of Greek, University of Edinburgh; Editor of *Classical Review*; 40b George Square, Edinburgh, 8,—*Secretary for Foreign Correspondence*.
- 1919.*CALLANDER, ALEXANDER D., Lelloptiya, Ratnapura, Ceylon.
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1901. CHRISTIE, Miss, Cowden Castle, Dollar.
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1939. CLARK, WILLIAM C., 75 Caunfield Place, Aberdeen.
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1941. CLAUSEN, ERLING J. F., F.R.G.S. "Jarlsbot," Thurso, Caithness.
1908. CLAY, ALEXANDER THOMSON, W.S., 18 South Learmonth Gardens, Edinburgh, 4.
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1929. CLIFFORD, Mrs. ELSIE MARGARET, Chandlers, Witcombe, Glos.
1916. CLOUSTON, ERIC CROSBY TOWNSEND, M.R.C.S.(Eng.), L.R.C.P.(Lond.), Priory Lodge, Tonbridge, Kent.
- 1922.*CLOUSTON, RONALD GILIAN, L.R.C.P. (Edin.), L.R.C.S. (Edin.), 10 Carrington Street, Glasgow, C. 4.
- 1921.*CLOUSTON THOMAS HAROLD, O.B.E., Langskailh, 5 Atherton Drive, Wimbledon Common, London, S.W. 19.
- 1901.*COCHRAN-PATRICK, Lily, Woodside, Beith.
- 1898.*COCHRAN-PATRICK, Sir NEIL J. KENNEDY, K.B.E., J.P., D.L., of Woodside, Advocate, Ladyland, Beith.
- 1919.*COCKBURN, Captain ARCHIBALD FREDERICK, R.E. (T.F.), 26 Curzon Street, Mayfair, London, W. 1.
1929. COCKBURN, The Very Rev. J. HUTCHISON, D.D., The Cathedral Manse, Dunblane.
1929. COLLUM, Miss V. C. C., Withyfold, Wonham Way, Peaslake, Guildford.
1936. COLQUHOUN, Sir IAIN, of Luss, Bart., K.T., D.S.O., LL.D., Rosdhu, Luss, Dumbartonshire.
1924. COIT H. DUNSCOMBE, c/o Farmer's Loan and Trust Co., 15 Cockspur Street, London, S.W. 1.
- 1921.*COLVILLE, Captain NORMAN R., M.C., Penheale Manor, Egloskerry, Cornwall.
1932. CONNELL, WILLIAM, 43 Chestwood Avenue, Oakland Park, Barnstable.
1933. CONNOR, Rev. JOHN M., D.S.O., M.A., C.F. (Ret.), 14 Cypress Road, Newport, Isle of Wight.
1942. COOK, JOHN, M.A., 6 Springfield Crescent, Stromness, Orkney.
1938. COOK, JOHN MANUEL, B.A., 114 Braid Road, Edinburgh, 10.
1938. COOPER, The Rt Hon LORD, LL.D., The Lord Justice-Clerk, 16 Hermitage Drive, Edinburgh, 10.
- 1920.*CORRAR, KENNETH CHARLES, of Rosely, Maurice-wood, Milton Bridge, Midlothian.
1935. COURTNEY-LATIMER, Miss MARJORIE EILEEN, Curator, East London Museum, 8 Lake St Vincent, P.O., Cambridge, South Africa.
1931. COWE, WILLIAM, Tweedville, 3 Thorburn Road, Colinton, Edinburgh, 13.
1929. COWIE, MORTON J. H., A.R.I.B.A., "Durrishdeer," 30 St John's Road, Corstorphine, Edinburgh, 12.
1935. CRAIG, JOHN, M.B., Ch.B., M.R.C.P.E., 5 Albyn Terrace, Aberdeen.
1925. CRAIG-BROWN, Brigadier-General E., D.S.O., Cross Roads, Currie, Midlothian.
1927. CRANSTOUN, Colonel C. J. EDMONDSTOUNE, D.S.O., Corehouse, Lanark.
- 1943.*CRAWFORD, JAMES RUSSELL, Stonehurst, Linden Road, Hahtax.
1931. CRICHTON, GEORGE, 6 Duncan Street, Edinburgh, 9.
1932. CRICHTON, Rev. THOMAS SMITH, M.A., 182 Whitehill Street, Dennistoun, Glasgow, E. 1.
- 1925.*CRICHTON-STUART, The Lord COLUM, M.P., Ardencraig, Rothesay, Bute.
1937. CROOKSHANK, Col. D'WINDT, D.L., J.P., Johnstonburn, Humble, E. Lothian.
1938. CROSGROVE, THOMAS TORRANCE, Woodlands, 9 Tinto Road, Newlands, Glasgow, S. 3.
- 1925.*CROSS, A. ROBERTSON, M.C., B.A., LL.B., 11 Kirklee Terrace, Glasgow, W. 2.
1937. CRUDEN, STEWART H., A.R.I.B.A., 93 Barons-court Terrace, Edinburgh, 8.
1924. CRUICKSHANK, JAMES, Westwood, Bucksburn, Aberdeenshire.
1924. CULLEN, ALEXANDER, Lieut.-Colonel, T.D., O.B.E., F.R.I.B.A., F.S.I., Stramore, Uddingston, Lanarkshire.
1932. CUMMING, ALEXANDER, B.A., M.B., Ch.B., F.R.C.S.E., 193 Dominion Road, Auckland, S. 2, New Zealand.
1907. CUMMING, ALEXANDER D., Auchengower, Brackland Road, Callander.
- 1927.*CUMMING, VICTOR JAMES, 8 Grosvenor Terrace, Glasgow, W. 2.
1893. CUNNINGTON, Captain B. HOWARD, 33 Long Street, Devizes, Wiltshire.
- 1893.*CURLE, ALEXANDER O., C.V.O., LL.D., F.S.A., Ormsacre, Barnton Avenue, Davidson's Mains, Edinburgh, 4.
1933. CURLE, Lt.-Col. ALEXANDER TANCRED, D.S.O., M.B.E., c/o Ministry of the Interior, Addis Ababa, Ethiopia.
1931. CURRIE, Mrs. ALEXANDER T., F.S.A., Chiffrone Cottage, Maiden Newton, Dorset.
1936. CUTHBERTSON, WILLIAM F., Librarian, The Public Library, Hawick. "Fairylea," 8 Wilton Hill Terrace, Hawick.
- 1935.*DAKERS, COLIN HUGH, M.C., Malayan Civil Service, Chinese Protectorate, Ipoh, F.M.S.
1931. DALGETTY, ARTHUR BURNES, M.D., 14 Strips of Craigie, Dundee.
1924. DALGLEISH, Rev. GEORGE W., M.A., The Manse, Monymusk, Aberdeenshire.

1883. DALRYMPLE, The Hon. Sir HEW H., K.C.V.O., Hon. R.S.A., 24 Regent Terrace, Edinburgh, 7.
1924. DALYELL OF THE BINNS, Lieut.-Colonel G., C.I.E., Unicorn Pursuivant, The Binns, Linlithgow.
1920. DAVIDSON, Captain A. R., The Black Watch (R.H.R.). Invernahaven, Abernethy, Perthshire.
1925. DAVIDSON, GEORGE M., Architect and Surveyor, 16 King Street, Stirling.
1920. DAVIDSON, JAMES, Treasurer, The Carnegie Trust for the Universities of Scotland, 59 Morningside Park, Edinburgh, 10.
1937. DAVIDSON, JAMES, M.B., Ch.B., F.R.C.P.E., Metropolitan Police Laboratory, Hendon, Hyde, London, N.W. 9.
1930. DAVIDSON, Major JAMES MILNE, I.S.O., Lynwood, Ashted, Surrey.
1932. DAVIDSON, J. M., O.B.E., F.C.I.S., Griffin Lodge, Gartcosh, Glasgow.
1936. DAVIDSON, WILLIAM T., 36 Woodstock Road, Aberdeen.
- 1925.*DAWSON, A. BASHALL, The Vache, Chalfont St Giles, Bucks.
- 1927.*DAWSON, WARREN R., F.R.S.E., F.S.A., Simpson House, Simpson, Bletchley, Bucks.
1922. DLAS, GEORGE BROWN, Architect and Civil Engineer, Lossiebank, Whytehouse Avenue, Kirkcaldy.
1938. DICKINSON, Professor WILLIAM CROFT, M.A., Ph.D., D.Lit., History Department, The University, Edinburgh.
1934. DICKSON, DOUGLAS STANLEY, LL.B., 8 Clarence Drive, Hyndland, Glasgow.
1923. DICKSON, WALTER, Lynedoch House, Elcho Terrace, Portobello.
1895. DICKSON, WILLIAM K., LL.D., Advocate, 8 Gloucester Place, Edinburgh, 3.
1919. DINWOODIE, JOHN, Deira, Crieff.
1910. DIXON, RONALD AUDLEY MARTINEAU, of Thearne, F.R.S.E., F.G.S., F.R.G.S., Thearne Hall, near Beverley, Yorkshire.
1931. DOBIE, MARRYAT R., B.A. (Oxon.), Keeper of Manuscripts, National Library of Scotland, Edinburgh, 1.
1931. DOIG, Major WILLIAM HOWIE, C.E., Gordon Street, Elgin.
1943. DONALD, JOHN, LL.O.B., 1217 Tolleross Road, Tolleross, Glasgow.
1939. DOUGLAS, JAMES, Ednam House, Great Bookham, Surrey.
1927. DOW, J. GORDON, Solicitor and Joint Town Clerk, Millburn House, Craib, Fife.
1929. DRUMMOND, Mrs ANDREW L., Eadie Church Manse, Alva, Clackmannan.
1939. DRUMMOND, H. J. H., M.A., 4 South Learmonth Gardens, Edinburgh, 4.
1935. DUFF, J., Civil Servant, Record Office, H.M. General Register House, Edinburgh, 2.
1902. DUFF-DUNBAR, Mrs L., of Ackergill, Ackergill Tower, Wick, Caithness.
1936. DUFFUS, J. COUTTS, Yr. of Claverhouse, Claverhouse, by Dundee, Angus.
1942. DUFFUS, JOHN COUTTS, Claverhouse, by Dundee, Angus.
- 1930.*DUMFRIES, The Right Hon. The EARL OF, Dumfries House, Cumnock, Ayrshire.
1937. DUNCAN, Brevet-Colonel ALAN M., T.D., 33 Fotheringay Road, Glasgow, S. 1.
- 1920.*DUNCAN, ALEXANDER MACLAUCHLAN A.R.I.B.A., c/o Commonwealth Bank of Australia, Perth, W.A., Australia.
1924. DUNCAN, GEORGE, LL.D., Advocate, 60 Hamilton Place, Aberdeen.
1934. DUNCAN, JAMES, Conservator, Anthropological Museum, Marischal College, Aberdeen, 13 Northfield Place, Aberdeen.
1930. DUNCAN, JOHN J., 118 Greenbank Road, Edinburgh, 10.
1932. DUNCAN, ROBERT, M.A., 294 Strathmartine Road, Dundee.
1921. DUNDAS, R. H., M.A., Christ Church, Oxford.
1933. DUNLAP, MAURICE P., 718 Nineteenth St., N.W., Washington, D.C., U.S.A.
1923. DUNLOP, Miss, Huntfield, Biggar.
1923. DUNLOP, Rev. WILLIAM, M.A., St David's Manse, Buckhaven, Fife.
- 1927.*DURAND, Captain PHILIPPE, Curator of the People's Palace Museum, Glasgow Green, Glasgow, S.E., 88 Holmlea Road, Cathcart, Glasgow.
1937. DYKES, Provost THOMAS, J.P., 3 Bank Street, Annan.
1924. EADES, GEORGE E., M.A., L.C.P., 29 Eversley Road, London, S.E. 19.
1904. EELES, FRANCIS CAROLUS, O.B.E., D.Litt., F.R.Hist.S., Central Council for the Care of Churches, Earham, Dunster, Somerset.
- 1923.*ELPHINSTONE, The Right Hon. LORD, K.T., LL.D., Carberry Tower, Musselburgh.
1926. FAIRBAIRN, ARCHIBALD, Wellwood, Muirkirk, Ayrshire.
1938. FAIRBAIRN, JAMES, Shotheads, Oxnam, Jedburgh.
1936. FAIRHURST, HORACE, M.A., Ph.D., Millhill, Lamash, Arran.
1940. FAIRLIE, JAMES McLACHLAN, A.M.Inst.C.E., A.I. Mech.E., A.M.I. Struct.E., 23 Saughtonhall Terrace, Edinburgh, 12.

1923. FAIRLIE, REGINALD F., LL.D., R.S.A., Architect, 7 Ainslie Place, Edinburgh, 3.
- 1921.*FARMER, HENRY GEORGE, M.A., Ph.D., D.Litt., M.R.A.S., Dar As-Salam, Stuhng Drive, Bearsden.
1936. FARRANT, R. D., His Honour The Deemster, 4 Albert Terrace, Douglas, Isle of Man.
1935. FENTON, WILLIAM, 5 Meethill Road, Alyth, Perthshire.
1926. FERGUSON, FREDERIC SUTHERLAND, The Homestead, Avenue Road, Southgate, London, N.14.
1928. FERGUSON, FREDERICK ANERLEY, Duncraig, Castle Street, Brechin.
1930. FERGUSON, HARRY SCOTT, W.S., Linden, West Park Road, Dundee.
- 1933.*FERGUSON-WATSON, HUGH, M.D., Ph.D., D.P.H., F.R.S.E., F.R.F.P.S., 109 Montgomery Street, Edinburgh, 7.
1939. FERRIS, Mrs ELLEN R., The Manor, King's Norton, Warwickshire.
- 1899.*FINDLAY, JAMES LESLIE, Architect, 10 Eton Terrace Edinburgh, 4.
1936. FINLAYSON, ALEXANDER M., 31 Brown Place, Wick.
1921. FINLAYSON, Rev. WILLIAM HENRY, The Rectory, Thelnetham, Diss, Norfolk.
- 1922.*FLEMING, JOHN ARNOLD, Lookley, Helensburgh.
1943. FLITCHER, JAMES, J.P., Provost of Kirkintilloch, Netherfield, Kirkintilloch.
1938. FLETT, ANDREW B., M.B., Ch.B., 15 Walker Street, Edinburgh, 3.
1928. FLIFF, JAMES A.L.A.A., Braeside, Gatehouse-of-Fleet, Castle-Douglas.
1939. FLIFF, JAMES, J.P., Bignold Park Road, Kirkwall, Orkney.
1935. FORBES, DONALD J., M.B., Ch.B., Craigmill House, Strathmartine, by Dundee.
1935. FORBES, JOHN FOSTER, F.R.A.I., Entry Head, Nunn Mills Burn by Penpont, Middleton.
1935. FOSTER-SMITH, ALFRED HENRY, 6 Montpelier Road, Ealing, London W. 5.
1923. FRANKLYN, CHARLES A. H., M.A., M.D., B.Sc., B.Sc., M.R.C.S., L.R.C.P., F.R.G.S., F.L.S., sometime F.R.E.S. & F.R.S. Med., etc., Exeter College, Oxford; Wickham Hall House, Hassocks, Sussex, and c/o The Westminster Bank, Ltd., 1 Lee Road, Blackheath, London, S.E. 3.
1934. FRASER, ALASDAIR, M.A., of Rannoch, The Schoolhouse, Canon Bridge, Dingwall, Ross-shire.
1933. FRASER, CHARLES IAN, of Reelg, M.A.(Oxon.), *Dingwall Pursuivant*, Reelg House, Kirkcubbin, Inverness-shire.
1921. FRASER, GEORGE MACKAY, Solicitor and Banker, Summerlea House, Portree, Skye.
1926. FRASER, Sir JOHN, K.C.V.O., M.C., M.D., F.R.C.S.E., LL.D., Regius Professor of Chical Surgery, University of Edinburgh, 20 Moray Place, Edinburgh, 3.
1929. GALBRAITH, J. J., M.D., D.P.H., 4 Park Street, Dingwall.
1913. GALBRAITH, ROBERT, A.R.I.A.S., L.R.I.B.A., 6 Oakhill Crescent, Aberdeen.
1933. GALLOWAY, JAMES L., F.S.M.C., F.I.O., "Coila," Ayr Road, Cumnock, Ayrshire.
- 1920.*GALLOWAY, THOMAS L., Advocate Auchendrane, by Ayr.
1918. GARDEN, WILLIAM, Advocate in Aberdeen, 4 Rubislaw Terrace, Aberdeen.
1925. GARDNER, GEORGE, M.C., The Kibble House, Greenock Road, Paisley.
- 1926.*GARDNER, JOHN C., Ph.D., B.L., Solicitor, Avthon, Stonehaven.
1914. GARDNER, WILLIAM REID, M.R.E., J.P., Solicitor, Milngavie, Dumbartonshire.
1921. GARDNER, WILLOUGHBY, D.Sc., F.S.A., Y Berlfa, Deganwy, North Wales.
1926. GAULD, H. DRUMMOND, of Kinnaird Castle, Craig Binning, Dechmont, West Lothian.
1941. GEMMELL, SAMUEL, Examiner R.N.T.F., 8 Grenville Road, Gourack, Renfrewshire.
1935. GENTLES, JOHN, Architect, 5 Bowling Street, Coatbridge.
- 1930.*GIBB, Sir ALEXANDER, G.B.E., C.B., LL.D. (Edin.), F.R.S., Queen Anne's Lodge, Westminster, London, S.W. 1.
- 1923 *GIBB, JOHN TAYLOR, High Street, Mauchline, Ayrshire.
1933. GIBSON, W. J., C.B.E., 15 Plewlands Avenue, Edinburgh, 10.
1922. GILTSPIE, JOHN, F.R.I.A.S., L.R.I.B.A., F.R.S.A., 56 Kennedy Street, Pollokshields, Glasgow.
1924. GILLES, Rev. WILLIAM A., B.D., D.D., The Mause, Kennmore, Perthshire.
1924. GILLON, STAIR AGNEW, Sheriff-Substitute of Dumfries and Galloway, Newton-Stewart.
- 1926 *GILMOUR, JOHN, 54 Bernside Avenue, Cathcart, Glasgow, S. 4.
1922. GIRDVAN, RICHIE, M.A., University Lecturer, Ekadasha, 11 Clevedon Gardens, Glasgow, W. 2.
- 1912.*GLADSTONE, Sir HUGH S., M.A., F.R.S.E., Capenoch, Penpont, Dumfriesshire.
1933. GOLDSMITH, Miss ELIZABETH, M.A.(Hons.), 14 West Holmes Gardens, Musselburgh.

1935. GOMME-DUNCAN, Lieut.-Colonel ALAN, M.C., Dunbarney, Bridge of Earn.
1937. GOOD, ROBERT JAMES, J.P., Maybank, 32 Alnwickhill Road, Liberton, Edinburgh, 9.
1933. GORDON-CAMPBELL, IAIN C., F.R.A.L., The Old Pound, Aldwick, Bognor Regis.
1937. GRAEME, PATRICK SUTHERLAND, C.B.E., J.P., Graemeshall, Orkney.
- 1913.*GRAHAM, ANGUS, M.A., F.S.A., Secretary, Royal Commission on Ancient and Historical Monuments of Scotland, 1 Nelson Street, Edinburgh, 3,—*Secretary*.
1933. GRAHAM, FRANCIS B., Solicitor, 61 Reform Street, Dundee.
1917. GRAHAM JAMES GERARD, Captain 4th Battalion The Highland Light Infantry, Clevedon Court Hotel, Clevedon Drive, Glasgow.
1944. GRAHAM-YOOLL, R. W., M.B., Ch.B (Edin.), "Cairnton," West Linton, Peeblesshire.
1888. GRANT, Sir FRANCIS J., K.C.V.O., LL.D., W.S., *Lord Lyon King of Arms*, 11, M. General Register House, Edinburgh, 2,—*Vice-President*.
1929. GRANT, JOHN, Civil Servant, "Lochnagar," 35 Groathill Avenue, Craigleith, Edinburgh, 4.
1941. GRANT, ROBERT D. S., M.A. (Edin.), Seaview, Muchalls, Aberdeenshire.
- 1930.*GRANT, WALTER G., of Trumland, Hillhead, Kirkwall, Orkney.
1931. GRANT, WILLIAM ENEAS, Alpha Cottage, Union Street, Kirkintilloch.
1937. GRAY, ALEXANDER, M.A., LL.B., Dunvegan, Church Avenue, Cardross, Dumbartonshire.
1937. GRAY, FRANK, Craig Lodge, Glenprosen, Angus.
1933. GRAY, JAMES DOW, J.P., "Ballochmyle," Strathmore Avenue, Dundee, Angus.
1930. GRAY, ROBERT D., 15 Lonsdale Terrace, Edinburgh.
1915. GRAY, WILLIAM FORBES, F.R.S.E., 8 Mansion-house Road, Edinburgh, 9.
1913. GREENGLAFT, R. L., L.R.C.P., L.R.C.S., L.R.F.P.S. (Glas.), Robroydon Hospital, Millerston, Glasgow.
1939. GREENHILL, FRANK ALLAN, M.A. (Oxon.), St Monans, Victoria Road, Maxwelltown, Dumfries.
1935. GREENHILL, WILLIAM, C.A., 31 Heriot Row, Edinburgh, 3.
1939. GREENLAKE, Rev. JOHN, T.D., North Manse, Buckie.
1940. GRIERSON, THOMAS, J.P., Clydesdale Bank Buildings, Wigtown.
1922. GRIVEL, WILLIAM GRANT, 10 Queensberry Street, Edinburgh, 2.
1920. GUILD, JAMES HARROWER, W.S., 5 Coates Gardens, Edinburgh, 12.
1911. GUNSON, Rev. ERNEST SHIRWOOD, M.A., 3 Moray Place, Glasgow, S. 1.
- 1907.*GUTHRIE, CHARLES, W.S., 3 Charlotte Square, Edinburgh, 2.
1927. GUTHRIE, DOUGLAS, M.D., F.R.C.S., 21 Clarendon Crescent, Edinburgh, 4.
1930. GUY, JOHN, M.A., 7 Campbell Street, Greenock.
1928. GWYNNE, Mrs F. H. X., International Sportsmen's Club, Upper Grosvenor Street, London, W. 1.
1938. HADDOW, Rev. J. MUIR, C.F., Springbank, Falkirk.
- 1933.*HAGGART, Provost JAMES DEWAR, O.B.E., J.P., Edean Rialbhach, Aberfeldy, Perthshire.
1936. HALL, W. R., J.P., F.R.S.E., The Shieling, Cranmond Brig.
1938. HALLIDAY, Rev. ALEXANDER, of Church of Scotland Livingstonia Mission, Chasafu, Lundazi, Fort Jameson, N. Rhodesia.
1929. HALLIDAY, THOMAS MATHILSON, c/o Messrs Barton & Sons, 11 Forrest Road, Edinburgh, 1.
1928. HAMILTON, Miss DOROTHEA E., 5 Anshe Place, Edinburgh, 3.
- 1901.*HAMILTON OF DALZELL, The Right Hon. LORD, K.T., C.V.O., Dalzell, Motherwell.
1935. HAMPSON, CHARLES P., Wentworth, Eccles, Lancs.
1919. HANNA, Miss CHALMERS, Dalnagad, Killiecrankie, Perthshire.
- 1925.*HANNA, WILLIAM GEMMILL CHALMERS, O.B.E., C.A., 6 Lennox Street, Edinburgh, 4.
1924. HARDING, WILLIAM, F.R.G.S., F.Z.S., Royal Societies Club, St James's Street London, S W. 1.
1920. HARDING, WILLIAM GRAID, F.L.S., F.R.Hist.S., F.R.S.E., M.R.S.L., Peckwater House, Charing, Kent.
- 1927.*HARRISON, EDWARD S., The Bield, Elgin.
1933. HARRISON, JAMES, M.D., J.P., 31 Howard Street, North Shields, Northumberland.
1938. HARRISS, Rev. ARTHUR LAURENCE, The Rectory, Great Stanbridge, Rochford, Essex.
1922. HAY, ALEXANDER MACKENZIE, "Arcadie," Barrach Lane, Aikwick, Bognor Regis, Sussex.
1938. HAY, JAMES C. MACDONALD, "Taugh-na-Braich," 165 Georgia Avenue, San Bruno, California.
1931. HEATH, Rev. ALBAN, The Manse, 188 Loop Street, Pietermaritzburg, Natal, South Africa.
- 1924.*HEMP, WILFRID J., F.S.A., Secretary, Ancient Monuments Commission for Wales and Monmouthshire, Bod Cywarch, Cricieth, N. Wales.
- 1927.*HENCKEN, HUGH O'NEILL, M.A., D.Litt., Ph.D., F.S.A., M.R.I.A., Peabody Museum, Harvard University, Cambridge, Mass., U.S.A.

1943. HENDERSON, D. G., Winterdyne, Wick, Caithness.
1930. HENDERSON, Miss DOROTHY M., Kilchoan, Kilmelford, Argyll.
1943. HENDERSON, EDWARD, Kirk Ha', Gleneraig, Fife.
- 1928.*HENDERSON, Rev. GEORGE D., D.D., D.Litt., Professor of Church History in the University of Aberdeen, 3 The Chanonry, Aberdeen.
1938. HENDERSON, G. P. M.A.(Oxon.), The Manse of Tynron, Dumfries.
1934. HENDERSON, Mrs MABEL DAIST, 33 Seymour Street, Dundee, Angus.
1937. HENDERSON, STUART M. K., Ph.D., B.Sc., Curator of Archaeology and History Department, Kelvingrove Museum, Glasgow, C. 3.
1927. HENDERSON, Miss SYBIL HORN, Turfhill, Kinross.
1931. HENDERSON, WILLIAM, M.A., 63 Ashley Terrace, Edinburgh, 11.
1920. HEPBURN, W. WATT, 32 Rubislaw Den, South, Aberdeen.
1891. HERRIES, Lieut.-Colonel WILLIAM D., of Spottes, Spottes Hall, Castle Douglas.
1934. HILLIARY, IAIN ROBERTSON, The Lodge, Edinbane, Isle of Skye.
- 1926.*HOGARTH, JAMES, 7 Carlton Terrace, Edinburgh, 7.
1941. HOGG, A. H. A., Lecturer in Civil Engineering, King's College, Newcastle-on-Tyne, 2.
1923. HOHL, HENRY JOHN M.A., M.B., Ch.B., 145 High Street, Montrose.
1914. HOME, GORDON C., Major, R.A.S.C., Langhaugh House, Galashiels.
1926. HOOD, Mrs VIOLET M., Tredean, near Chepstow, Mon.
1928. HOFF, Rev. LESLIE P., M.A., Ph.D., 24 Glasgow Street, Glasgow, W. 2.
1927. HOPKIRK, Rev. DUDLEY STUART, M.A., B.D., B.Litt. (Oxon.), 18 Regent Terrace, Edinburgh, 7.
1937. HORTH, Rev. WALTER ROBERT, A.K.C., Bealey, 19 Powley Way, Guildford, Surrey.
1928. HOUSTON, KEYWORTH E. F.R.G.S., St Bernard's, The Ridgeway, Rothley, Leicester.
1932. HOW, Commander GEORGE EVELYN PAGET, Royal Navy, Bassett-in-Thimble, near Royston, Herts.
- 1925.*HOWARD DE WALDEN, The Right Hon. LORD, Seaford House, London, S.W. 1.
- 1930.*HUNT, Lieut.-Col. EDGAR ERSKINE, M.C., M.A., LL.D., M.D., D.Litt., Sc.D., D.P.H., D.T.M., U.S. Army, The Magnolias, Frankfort, Kentucky, U.S.A.
1943. HUMPHRIES, WALTER R., M.A. (Hons.), "Monkbarns" Mutchalls, by Aberdeen.
1911. HUNTER, CHARLES BALFOUR CLAPHAM, 19 Glenburn Drive, Glasgow, S. 1.
1927. HUNTER, JOHN, Auchencroch, by Brechin, Angus.
1932. HUNTER, Lt.-Colonel ROBERT LESLIE, Newlands House, Polmont, Stirlingshire.
1937. HUNTER, WILLIAM CHARTERS, 56 Skiving Street, Shawlands, Glasgow.
1928. INGLIS, JOHN A., B.Sc., Keppoch, Roy Bridge, Inverness-shire.
1920. INNES, THOMAS, of Learney and Kinnairdy, *Albany Herald*, 35 Inverleith Row, Edinburgh, 4.
1932. JACK, JAMES, F.L.S., 6 Alexandra Place, Arbroath.
1913. JACKSON, GEORGE ERSKINE, O.B.E., M.C., W.S., 26 Rutland Square, Edinburgh, 1.
1918. JAMIESON, JAMES H., 14 Sciennes Gardens, Edinburgh, 9.
- 1923.*JAMIESON, JOHN BOYD, T.D., M.D., F.R.C.S.E., 43 George Square, Edinburgh, 8.
1941. JAY, RONALD L., 85 Kinnmount Avenue, Glasgow, S. 4.
- 1916.*JOHNSON, JOHN BOLAM, C.A., 12 Granby Road, Edinburgh, 9.—*Treasurer*.
1944. JOHNSTON, ALEXANDER, J.P., Catblaw, Torphichen, by Bathgate, West Lothian.
- 1902.*JOHNSTON, ALFRED WINTLE, Architect, 30 Goblins Green, Welwyn Garden City, Herts.
1938. JOHNSTON, JOHN, M.B., Ch.B., 7 Albion Place, Aberdeen.
1943. JOHNSTON, Pastor M. C. S., "South View," Lealholm, Yorks.
- 1930.*JONES, Mrs ENID POOLE, Glyn, West Kilbride, Ayrshire.
1938. KEEF, Miss PHOEBE A. M., Women's United Services Club, 23 Courtfield Gardens, London, S.W. 5.
- 1922.*KIEHLER, ALEXANDER, of Morven, Ballater, Aberdeenshire.
1921. KENNEDY, JOHN, 19 East Heath Road, Hampstead, London, N.W. 3.
1930. KINNEIDY, PETER, M.A., 20 Northfield Terrace, Edinburgh, 8.
1907. KENT, BENJAMIN WILLIAM JOHN, Tatefield Hall, Beckwithshaw, Harrogate.
1896. KERR, HENRY F., A.R.I.B.A., 12 East Claremont Street, Edinburgh, 7.
1927. KERR, ROBERT, M.A., Keeper of the Art and Ethnographical Departments, Royal Scottish Museum, 31 Wardie Road, Edinburgh, 5,—*Curator of Coins*.

1939. KERRSHAW, Mrs L. N., J.P., Starcliff House, 679 Manchester Road, Great Lever, Bolton, Lancs.
- 1911.*KETCHEN, W. T., W.S., 1 Jeffrey Avenue, Blackhall, Edinburgh, 4.
- 1912.*KING, Captain CHARLES, F.S.Sc. Lond., F.C.S., 11 Kelvin Drive, Glasgow, N.W.
1938. KING, CUTHBERT, I.C.S., c/o Civil Secretariat, Lahore, Punjab (c/o Lloyds Bank, 6 Pall Mall, London).
1926. KING, Mrs ELIZA MARGARET, of Arntomy, Port of Menteith, Perthshire.
1926. KINNEAR, WILLIAM FRASER ANDERSON, Colebrooke, Kersland Drive, Milngavie.
1919. KIRKNESS, WILLIAM, Craft Studio, 34A Howe Street, Edinburgh, 3.
1927. KIRKWOOD, JAMES, Beltrees, Dunchurch Road, Oldhall, near Paisley.
- 1922.*KNIFE, Miss F. BEATRICE, Ballamoar House, Ballaugh, Isle of Man.
- 1924.*KNOX, WILLIAM BARR, Ryefield, Dalry, Ayrshire.
1922. LACAILLE, ARMAND D., F.S.A. (Archæologist, Wellcome Historical Medical Museum), 2 Pasture Road, North Wembley, Middlesex.
- 1910.*LAIDLER, PERCY WARD, Medical Officer of Health, City Hall, East London, C.P., South Africa.
1923. LAMB, Rev. GEORGE B.D., Beechwood, Melrose.
1941. LAMB, Rev. JOHN ALEXANDER, B.D., Manse of Manor, Peebles.
- 1901.*LAMONT, Sir NORMAN, Bt., M.P., of Knockdow, Toward, Argyllshire.
1932. LANG, The Very Rev. MARSHALL B., T.D., D.D., Innisfree, Gifford, Haddington.
1932. LARG, ROBERT JAMES, J.P., "The Hollies," 63 Clepington Road, Maryfield, Dundee.
1913. LAWSON, Lt.-Col. HAROLD ANDREW BALVAIRD, Rothesay Herald, 18 Orchard Road South, Edinburgh, 4.
1930. LAWSON, W. B., 1 Roseburn Gardens, Edinburgh, 12.
1934. LEACH, Dr WILLIAM JOHN, Eilleandonan, Beaulieu.
1937. LEESE, JOHN, "Dhu Varran," 267 Clepington Road, Dundee.
- 1910.*LEIGHT, Colonel JAMES HAMILTON, Shenley Cottage, Bagborough, Taunton, Somerset.
- 1913 *LITTLE-ROSS, Lieut.-Colonel W., M.C., St Colms, 7 Lennox Row, Edinburgh, 5.
1925. LESLIE, Sheriff JOHN DEAN, 16 Victoria Place, Stirling.
1935. LESSELLS, JAY, D.A.Edin., L.I.F.A.Lond., Surma, West Kilbride, Ayrshire.
- 1902.*LEVESON-GOWFR, F. S., Travellers' Club, Pall Mall, London.
1941. LEVIE, WILLIAM ELDER, Advocate in Aberdeen, 63 Hamilton Place, Aberdeen.
1927. LIDDELL, BUCKHAM W., W.S., Union Bank House, Pitlochry.
1935. LIDDLE, LAURENCE H., Carpenham, Rostrevor, Co. Down.
- 1928.*LIGHTBODY, Major JOHN, Outlands, Lanark.
- 1919.*LINDSAY, Mrs BROCK, Colstoun, Haddington.
1927. LINDSAY, IAN GORDON, Houston House, Uphall.
1920. LINLITHGOW, The Most Hon. The MARQUESS OF, K.G., P.C., K.T., G.C.S.I., G.C.I.E., O.B.E., T.D., LL.D., Hopetoun House, South Queensferry.
1921. LINTON, ANDREW, B.Sc., Gilmanscleuch, Selkirk.
1925. LITTLE, JOHN R., 5 Dalrymple Crescent, Edinburgh, 9.
- 1881.*LITTLE, ROBERT, R.W.S., 2B Clanricarde Gardens, Tunbridge Wells.
1936. LOCKHART, Mrs A. McLAREN, J.P., Strathconon, 12 Menock Road, Glasgow, S. 4.
1938. LOCKIE, JOHN R., St Ninians, 5 Cross Road, Meiklerigg, Paisley.
- 1901.*LONEY, JOHN W. M., 6 Carlton Street, Edinburgh, 4.
1912. LORIMER, HUGH, 125 Glaisnock Street, Cumnock.
- 1917.*LOVE, WILLIAM HENDERSON, J.P., M.A., A.Mus., Rowanbank, Craigendaran, Helensburgh.
1926. LOW, ALEXANDER, M.A., M.D., Emeritus Professor of Anatomy in the University of Aberdeen, 144 Blenheim Place, Aberdeen.
1911. LOWTHER, A. W. G., F.S.A., A.R.I.B.A., Capt., R.E., "The Old Quarry," Ashted, Surrey.
1934. LUMSDEN, JAMES, 130 Blenheim Place, Aberdeen.
- 1938.*LYFORD-PIKE, JOHN DREWETT, M.A., 56 Kirkbrae, Liberton, Edinburgh, 9.
1936. LYON, DAVID MURRAY, M.D., Druim, Cohnnton.
- 1936.*LYON, WILLIAM KIRK, W.S., 21 Lynedoch Place, Edinburgh, 3.
1938. MACANDREW, Miss E., Curator, West Highland Museum, Fort William, Allt-a-Bhruais, Spean Bridge, Inverness-shire.
- 1927.*MACAULAY, JAMES, F.S.I., F.F.S., M.T.P.I., 37 St Vincent Crescent, Glasgow, C. 3.
- 1929.*MACAULAY, JOHN DRUMMOND, Ellwyn, 69 Terregles Street, Dumfries.

1938. MCBAIN, Ft.-Lt. (R.A.F.V.R.) JAMES MATHESON, Solicitor, Rosemount, Arbroath.
1941. MACBEAN, JOHN, Solicitor, 42 Union Street, Inverness.
1935. MCBRIDE, DANIEL, B.L., Sheriff Clerk of Dunbartonshire, County Buildings, Dunbarton.
1932. MCCABE, JAMES OSBORNE, B.A., M.A., "Fanmore," Bathgate.
1926. McCASKILL, JOHN, J.P., Estate Office, Gairloch, Ross-shire.
1928. McCLYMONT, Rev. J. DOUGLAS, M.A., B.D., The Manse of Old Cumnock, Cumnock, Ayrshire.
1930. MACCOLL, HUGH GEOFFREY, M.A., B.Sc., Craigharranoch, Ballachulish, Argyll.
1930. MACCOLL, WILLIAM DUGALD, 94 Heath Street, Hampstead, London, N.W. 3.
1915. McCORMICK, ANDREW, 66 Victoria Street, Newton-Stewart.
1924. McCORMICK, JOHN, 380 Canntyne Road, Glasgow, E. 2.
- 1924.*McCOSH, JAMES, Solicitor, Pitcon, Dalry, Ayrshire.
- 1925.*MACCOWAN, Rev. RODERICK, The Manse, Raasay, Isle of Skye.
1929. McCRAE, THOMAS, F.R.I.A.S. 6 N.E. Circus Place, Edinburgh, 3.
1913. MACCRIMMON, MALCOLM RODERICK, of Scotford Farm, Fort Saskatchewan, Alberta, Canada.—c/o Mr G. C. B. Poulter, F.S.A.Scot., Collingwood Place Camberley, Surrey.
1938. MACFEELOCH, Rev. NIGEL J. H., S.C.F., c/o The Rev. Canon MacCulloch, D.D., The Rectory, Bridge of Allan.
1926. MACDONALD, DONALD SOMERLED, W.S., 1 Hill Street Edinburgh 2.
1929. MACDONALD, HENRY LACHLAN, of Dunach, Dunach, Oban Argyll.
1929. MACDONALD, JAMES H., M.B., Bandy House, Luss, Alexandria, Dunbartonshire.
1930. MACDONALD, WILLIAM, Public Assistance Officer, Craigmore, Croydon Road, Beaulieu.
1939. McDOWALL, J. KLVAN, Carseminnoch, 3 Airlour Road, Newlands, Glasgow, S. 3.
1928. MACLEHLEN, Rev. C. VICTOR A., M.A., The Manse, Croctown, Kirkcudbrightshire.
1926. McLERICH, RODERICK, Factor, Ostrom House, Lochmaddy, North Uist.
1936. MACFARLANE, D. R., Observatory Boys' High School, Mowbray, Cape, South Africa.
1935. MACFARLANE, Captain JOHN, "Selma," 34 Derby Street, Vaucluse, New South Wales, Australia.
1913. MACFARLANE, PETER NIEL, F.R.S.E., 29 Ulster Drive, Edinburgh, 8.
- 1898.*MACGILLIVRAY or MacGILLIVRAY, C.M., M.D., D.Sc., LL.D., Chatten Croft, Crail, Fife.
1942. MCGLASHAN, WILLIAM, Principal Lecturer in English and History, Training Centre, Aberdeen, 227 Queen's Road, Aberdeen.
- 1901.*MACGREGOR, ALASDAIR R., of Macgregor Cardney, Dunkell.
1944. MCGREGOR, DAVID D., North Tay House, Balfield Road, Dundee, Angus.
1933. McHARDY, IAN, Director of Education, Caithness, Randolph Place, Wick.
1935. McINNES, CHARLES THORPE, Civil Servant, White Cottage, Old Kirk Road, Corstorphine, Edinburgh, 12.
1926. McIntire, WALTER T., B.A., St Anthony's, Milnthorpe, Westmorland.
1943. MACINTYRE, Rev. JOHN, M.A., B.D., The Manse, Kilmelford, Argyll.
1913. MACKINTOSH, H. B. M B.E., Redhythe, Elgin.
1939. McINTOSH, MURDOCH, Sheriff-Clerk of Invernessshire, "Drummond Tower," Upper Drummond, Inverness.
- 1922.*MACKINTOSH, Rev. R. SMITH, Hon. C.F., Pine Grange, Ferndown, Dorset.
1939. McINTOSH, WILLIAM, Seaforth, 12 Minard Crescent, Dundee.
1925. MACKAY, DONALD, J.P., Member of the Scottish Land Court, Latheronwheel House, Caithness.
1908. MACKAY, GEORGE M.D., F.R.C.S. E., 10 Rothesay Place, Edinburgh, 3.
1921. MACKAY, GEORGE DOBS, Beach Villa, Wellington Street, Portobello.
1932. MACKAY, J. B., A.R.I.A.S., Architect, H.M. Office of Works 122 George Street, Edinburgh, 2.
1912. MACKAY, NORMAN DOUGLAS, M.D., B.Sc., D.P.H., Dall-Avon, Aberfeldy.
1939. MACKAY, Captain WILLIAM, Netherwood, Inverness.
1913. MACKAY, WILLIAM J., 219 Ferry Road, Edinburgh, 6.
1923. MACKENZIE, ROBERT G. S., R.B.A., 4 Watch Bell Street, Rye, Sussex.
1913. MACKINNA, F. SIVERN, M.A., M.B., The Hollies, Dentwich, Worcestershire.
1923. MACKENZIE, ALEXANDER G. R., F.R.I.B.A., Bourtie House, Inverurie, Aberdeenshire.
1919. MACKENZIE, HECTOR HUGH, J.P., "Ballone," 37 Buckstone Terrace, Edinburgh, 10.
1931. MACKENZIE, THOMAS, J.P., F.E.I.S., 7 Station Road, Dingwall, Ross-shire.
1901. MACKENZIE, WILLIAM COOK, Deargall, St George's Road, St Margaret's-on-Tyne.
1904. MACKENZIE, W. M., M.A., D.Litt., H.R.S.A., Head of Department of Ancient (Scottish) History and Palaeography in Edinburgh University, 8 Cargill Terrace, Edinburgh, 5,—*Vice-President.*

1940. McKERRAL, ANDREW, C.I.E., M.A., B.Sc.,
Morton, Midcalder, Midlothian.
1926. McKERROW, MATHEW HENRY, Solicitor, Dunard,
Dumfries.
1938. MACKIE, Professor J. DUNCAN, M.C., M.A.,
9 The College, The University, Glasgow.
1926. MACKIE, ROBERT L., M.A., B.Litt., Lecturer in
English and History, Dundee Training College,
Abercraig, West Newport, Dundee.
1930. MacKILLOP, Rev. ALLAN MacDONALD, E.D.,
B.A., B.D., "Grimmish" Sisley Street, St
Lucia, Brisbane, Queensland, Australia,—
Member of the Senate.
1930. MacKINNON, BENJAMIN BLACK, J.P., "Newark,"
20 Hutchison Drive, Canniesburn, Bearsden,
Glasgow.
1931. MacKINNON, DONALD S., Leob, Elliot Place,
Colinton Road, Edinburgh, 11.
1919. *MacLAGAN, DOUGLAS PHILIP, W.S.—*Secretary.*
1923. *MacLAGAN, Miss MORAG.
1922. McLARF, THOMAS, Burgh Engineer, Redcliffe,
Barnhill, Perth.
1928. MacLEAN, ARCHIBALD, "Helen-Isle," Bridge of
Allan.
1934. MacLEAN, DUGALD, M.A., LL.B., 10 York Place,
Edinburgh, 1.
1939. MacLEAN, IAIN MALCOLM MacCRIMMON, Surg-
Lieut. (R.N.V.R.), Somerled Square, Portree,
Isle of Skye.
1934. MacLEAN, Rev. JOHN, Manse of Lochalsh,
Balmacara, Kyle, Ross-shire.
1932. MacLEAN, ROBERT GELLATLY, F.A.I. (Lond.),
300 Ferry Road, Dundee.
1942. MacLEAN, RONALD, M.B., Ch.B., Sgeir Mhor,
Applecross, Ross-shire.
1931. McLELLAN, ROBERT A., M.I.Loco.E., Inver-
garry, Madeira Walk, Church Stretton, Shrop-
shire.
1934. McLEOD, ALEXANDER GRANT, M.A., "Harp-
dale," Campbell Street, Darvel, Ayrshire.
1939. MacLEOD, ANGUS, Mount Tabor, Kinnoull,
Perth.
1930. McLEOD, DONALD, 4502 West 7th Avenue,
Vancouver, B.C., Canada.
1910. MacLEOD, F. T., 55 Grange Road, Edinburgh, 9.
1924. MacLEOD, Sir JOHN LORNE, G.B.E., LL.D., 72
Great King Street, Edinburgh, 3.
1922. MacLEOD, Rev. MALCOLM, M.A., The Manse of
Balgahidder, Lochearnhead, Perthshire.
1925. MacLEOD, Rev. WILLIAM, Ph.D., B.D., St Broue
Manse, Port-Bannatyne, Rothesay.
1919. MacLEOD, Rev. CAMPBELL M., B.D., 20 Priest-
den Road, St Andrews, Fife.
1933. MacMASTER, THOMAS, Secretary, Caledonian
Insurance Company, 190 Grange Loan,
Edinburgh, 9.
1905. MACMILLAN, The Right Hon. LORD, of Aber-
feldy, P.C., G.C.V.O., LL.D., Moon Hall,
Ewhurst, Surrey.
1916. *McMILLAN, Rev. WILLIAM, D.D., Ph.D., Chaplain
to the Forces, St Leonard's Manse, Dunferm-
line.
1928. MACMILLAN, WILLIAM E. F., F.S.A., 42 Onslow
Square, London, S.W. 7.
1943. McNABB, NEIL LINKLATER, Acton, Ontario,
Canada.
1942. MACNAMARA, Mrs. Loch Eye House, Fearn,
Ross-shire.
1915. MACNEIL, ROBERT LISTER, of Barra, Barra House,
Marlboro', Vermont, U.S.A.
1929. McNEILL, DAVID, M.A., School House, Loanhead,
Midlothian.
1934. *McNEILL, NEIL, of Ardnacross, Cloquhat, Bridge
of Cally, Perthshire.
1913. MACPHERSON, DUNCAN, Glenquithiel, Kyle of
Lochalsh, Ross-shire.
1909. *MACRAE, Colonel Sir COLIN WILLIAM, C.V.O.,
C.B.E., V.L., Colmitraive, Argyll.
1926. MACRAE, Rev. DUNCAN, 32 Drumshough Gardens,
Edinburgh, 3.
1934. MACRAE, KENNETH, Applecross, Ross-shire.
1921. McROBBIE, WILLIAM ALEXANDER, F.S.I., 102
Desswood Place, Aberdeen.
1923. *MACROBERT, Lady, B.Sc., F.G.S., Douneside,
Tarland, Aberdeenshire.
1935. MACVICAR, NEIL, W.S., 9 Belgrave Crescent,
Edinburgh, 4.
1930. MABEY, ARTHUR JAMES, The Anchorage, Drake's
Avenue, Exmouth, Devon.
1931. MACAN, ANTHONY JOHN CARR, M.D., B.Ch.,
F.R.G.S., F.R.S.M., F.R.I.P.H., F.Z.S.,
F.L.Hist.Sy., F.R.H.S., 130 Harley Street,
London, W.1, or 21 Acomb Street, Man-
chester, 15.
1926. MAITLAND, Mrs MILDRED E., Larnach, Aberfoyle,
Perthshire.
1928. MALCOLM, Sir IAN, of Poltalloch, K.C.M.G.,
D.L., J.P., Poltalloch, Kilmartin, Argyll.
1901. MANN, LUDOVIC McLELLAN, 183 West George
Street, Glasgow, C. 2.
1912. *MANSTFIELD, The Rt. Hon. The EARL OF,
B.A. (Oxon.), F.Z.S., F.Z.S.Scot., M.B.O.U.,
F.R.H.S., J.P., Logie House, Methven,
Perthshire.
1941. *MARSHALL, DAVID C., C.A., F.R.S.A., Lieutenant,
R.N.V.R., Kilbucko Place, Broughton, Peebles-
shire.
1917. MARSHALL, JOHN NAIRN, M.D., Stewart Hall,
Rothesay.
1922. MARTIN, GEORGE MACGREGOR, 31 South Tay
Street, Dundee.
1921. MARWICK, HUGH, O.B.E., M.A., D.Litt., Alton
House, Kirkwall, Orkney.

1925. MARWICK, JAMES GEORGE, J.P., 21 Graham Place, Stromness, Orkney.
- 1925.*MATHESON, NEIL, Post Office, Lerwick, Shetland.
1938. MATHEW, JAMES, 18 Airlie Place, Dundee.
- 1892.*MAXWELL, Sir JOHN STIRLING, Bt., K.T., D.L., H.R.S.A., Pollok House, Glasgow, S. 3,—*President*.
1935. MAXWELL, J. HARRISON, M.A., 21 Tay Crescent, Riddrie, Glasgow.
1939. MAYES, Captain WALTER PHILIP, R.A. (no address).
- 1924.*MEIKLE, Rev. JAMES, B.D., 15 St Clair Terrace, Edinburgh, 10.
1929. MENZIES, WILLIAM, H.M. Inspector of Schools, 6 St Vincent Street, Edinburgh, 3.
1940. MENZIES, Dr W. MENZIES, 25 Castle Terrace, Edinburgh, 1.
1937. MICHIE, Miss HELLINOR T., 118 Hamilton Place, Aberdeen.
1934. MIDDLETON, ARTHUR PIERCE, M.A.(Edin.), A.M. (Harvard), 33-52 81st Street, Jackson Heights, New York City, U.S.A.
1937. MILLAR, CHARLES M. HEBURN, 17 Osborne Terrace, Edinburgh, 12.
1911. MILLER, STEUART NAPIER, M.A., Damhill Lodge, Corehouse, Lanark.
1943. MILLS, D. KENNETH, "Green Willows," 139 Preston New Road, Marton, Blackpool, Lancs.
1944. MILNE, ARCHIBALD, JR., C.A., North Tay Works, Leven Road, Dundee.
1923. MILNE, GEORGE CRAIG-IE House, Lompay, Fraserburgh, Aberdeenshire.
1913. MILNE, MAURICE, C.E., 129 Gray Street, Aberdeen.
1938. MITCHELL, Major GEORGE A. G., M.B., Ch.M., Craigview, Braemar Road, Ballater.
1935. MITCHELL, GEORGE WILSON, Troupsmill, Drumblade Huntly, Aberdeenshire.
1939. MOFFAT, FORREST MURHEAD, "Auchenrigg," Bearsden, Dunbartonshire.
1922. MOONEY, JOHN, J.P., Cromwell Cottage, Kirkwall, Orkney.
1931. MORLEY, HENRY T., J.P., B.Sc. (Archaeology), F.R.Hist.S., Leicester House, King's Road, Reading.
1934. MORPETH, ROBERT SPOTTISWOODE, Ph.C., M.P.S., 10 Centre Parade, Greenford Avenue, London, W. 7.
1931. MORRIS, S. V., "Newlands," Rowland Keld, Hutton Gate, near Guisborough, N. Yorks.
1930. MORTLOCK, Rev. WILLIAM, M.Sc., F.R.G.S., M.R.S.L., 42 Southwood Avenue, W. Southbourne, Bournemouth.
1930. MORTON, ALEXANDER SMITH, Solicitor, Victoria Street, Newton-Stewart.
1925. MOWAT, JOHN, 50 Southampton Drive, Glasgow, W. 2.
1941. MOWAT, Rev. McINTOSH, B.L., Campsie Manse, Campsie Glen, Glasgow.
1939. MULLER, FERDINAND, L.D.S., 46 Station Road, Blackpool.
1934. MUNROCH, JAMES, F.R.S.E., 15 Liberton Drive, Liberton, Edinburgh, 9.
1932. MUNRO, W. A., D.Litt., 7 Laverockbank Terrace, Edinburgh, 5.
1933. MURRAY, CHARLES STEWART, 8 Hillview, Blackhall, Edinburgh.
1920. MURRAY, JAMES, J.P., Kenwood, 97 Kirkintilloch Road, Bishopbriggs, Glasgow.
1926. MURRAY, Miss LOUISA, The White House, Anstruther, Fife.
- 1927.*NAPIER, J. G., 13 Lynedoch Place, Edinburgh, 3.
1933. NAPIER, JOHN WATSON, M.B.E., M.I.Chem.E., Dunards, Birnam, Dunkeld, Perthshire.
1923. NELSON, Mrs. Beechwood, Calderstones, Liverpool, 18.
1943. NESS, Capt. GEORGE, L.D.S., R.F.P.S. (Glas.), The Army Dental Corps, c/o Barclays Bank, Stow-on-the-Wold, Glos.
1936. NICHOLAS, DONALD LOUIS, M.A., Pine Lodge, Stanley Avenue, Higher Bebington, Cheshire.
1941. NORMAND, The Rt. Hon. LORD, P.C., Lord Justice-General, 27 Moray Place, Edinburgh, 3.
- 1941.*NORRIE, VICTOR, J.P., 6 Wester Coates Gardens, Edinburgh, 12.
1929. NOTMAN, ROBERT CARFRAE, W.S., 15 York Place, Edinburgh, 1.
1927. O'MALLEY, Lady OWEN, St C., 1 More's Garden, Cheyne Walk, Chelsea, London, S.W. 3.
- 1922.*OCHTERLONY, CHARLES FRANCIS, Overburn, Lanark Road, Currie, Midlothian.
1924. OGILVIE, JAMES D., Barloch, Milngavie.
1928. OLIPHANT, Rev. JOHNSTON, B.D., The Manse, Abercorn, South Queensferry.
1926. OLIVER, Mrs F. S., Edgerston, near Jedburgh.
1943. PALMER, WILLIAM THOMAS, F.R.G.S., 5 Earlsfield Road, Wandsworth Common, London, S.W. 18.
1939. PATTERSON, JAMES GRAHAM, Wellwood, Irvine, Ayrshire.
1934. PATERSON, The Very Rev. JOHN N. M., The Manse, Newcastle, Natal, South Africa.

1915. PATERSON, JOHN WILSON, C.V.O., M.B.E., A.R.I.B.A., Principal Architect, Ministry of Works, 11 Abinger Gardens, Murrayfield, Edinburgh, 12.
1925. PATIENCE, ALEXANDER. "Pilmor," 2 Carrick Drive, N. Mt. Vernon, near Glasgow.
1934. PATON, EDWARD RICHMOND, of Hareshawmuir, B.A.(Cantab.), F.Z.S., M.B.O.U., The Lodge, *in* Kilmarnock, Ayrshire.
1936. PATON, HENRY MACLEOD, Curator of Historical Records, H.M. Register House, 5 Little Road, Liberton, Edinburgh, 9.
1924. PATON, JAMES, 80 High Street, Lanark.
1933. PATRICK, Captain WILLIAM MACFARLANE, Architect, F.R.I.A.S., Ashton Cottage, Kirriemuir, Angus.
1925. PATTERSON, RICHARD FERRAR, M.A (Cantab.), D.Litt.(Glas.), Graham's Dyke, Bearsden, Dunbartonshire.
1928. PAUL, Lieut.-Colonel J. W. BALFOUR, D.S.O., D.L., *Marchmont Herald*, Cakemuir, Tynehead, Midlothian.
1923. PEARSON, Rev. Professor A. T. SCOTT, M.A., B.D., D.Th., D.Litt., F.R.Hist.S., Professor of Church History, 2 College Park, Belfast, N. Ireland.
1940. PERRIDGE, Major FRANK S., 45 Third Avenue, or P.O. Box 822, Newton Park, Port Elizabeth, South Africa.
1930. PETERS, ARTHUR BOWDEN, F.R.Met.S., Librarian and Curator, Inverness Public Library.
1942. PEVERELLE, Rev. FRANCIS W., F.R.S.A., "Lantaret," Ringwood Road, Ferndown, Hampshire, Dorset.
1942. PHILLIPS, JAMES NICOLL, 20 American Muir Road, Downfield, Dundee.
1938. PIGGOTT, STUART, Priory Farm, Rockbourne, near Fordingbridge, Hants.
1926. PILKINGTON, ALAN D., Achvarasdal, Thurso, Caithness.
1939. PINE, LESLIE GILBERT, B.A.(Lond.), 20 Arundel Mansions, Fulham Road, London, S.W. 6.
1939. PITT-KETHLEY, HORACE VICTOR, "Wayside," Amersham, Bucks.
1939. PORTER, ERIC BRITN, 228 Clifton Drive South, St Anne's, Lytham St Anne's.
- 1901.*PORTLAND, His Grace The DUKE OF, K.G., Welbeck Abbey, Notts.
1937. POULTER, GEORGE COLLINGWOOD BROWNLOW, F.R.S.A.L., Collingwood Place, Camberley, Surrey.
1927. PRENTICE, JAMES, c/o Mrs Osborne, 1 Lordswood Close, Bassett, Southampton.
- 1911.*PRESTON, FRANK A. B., F.I.S.E., F.R.San.L., F.R.S.E., M.I.Struct.E., L.R.I.B.A., M.T.P.I., Craigrownie, Briarwell Road, Milngavie.
1906. PRINGLE, ROBERT M., Spottiswoode, Barnton Park, Davidson's Mains, Edinburgh, 4.
1924. PULLAR, PETER MACDUGALL, 30 Harelaw Avenue, Muirhead, Glasgow, S. 4.
1926. PURDIE, THOMAS, Aucheneck, Killearn, Stirlingshire.
1924. PURVES, JOHN M., M.C., 1 West Relugas Road, Edinburgh, 9.
1928. QUIG, Rev. GORDON, M.A., B.D., 238 Colinton Road, Edinburgh, 11.
1932. QUIG, JAMES SYMINGTON, Ravenscraig, Falkirk.
1921. RAE, JOHN N., S.S.C., 2 Danube Street, Edinburgh, 4.
1932. RAMSAY, DAVID GEORGE, M.A., B.Sc., Rector of Kirkcudbright Academy, Skair Kilndale, Kirkcudbright.
- 1921.*RAMSAY, DOUGLAS M., J.P., Bowland, Galashiels, Selkirkshire.
1928. RANDALL-MACIVER, DAVID, M.A., D.Sc., c/o Messrs Brown Brothers, Harriman & Co., 59 Wall Street, New York, U.S.A.
1935. RANKINE, WILLIAM FRANCIS, Badshot Lea, Farnham, Surrey.
1927. RATCLIFFE, JOSEPH RILEY, M.B., C.M. (Edin.), F.R.S.E., Beach Flat, Glenlyn, Little Orme, Llandudno.
1909. REID, ALPHONSO STODART, J.P., Bank of England, Manchester, 2.
1931. RENILSON, JOHN, c/o Mrs Ellis, 9 Forthill Terrace, Jedburgh.
1926. RROCH, JOHN, Hawthornden, Erskine Road, Whitecraig, Giffnock, Renfrewshire.
1943. RHODES, GEORGEY MARIN, B.A.(Oxon.), LL.B., Laigh Kittockside, near Carmunnock, Lanarkshire.
1935. RICE, D. TALNOT, O.B.E., M.A., D.Litt.(Oxon.), B.Sc., Professor of Fine Art, Edinburgh University, 33 Moray Place, Edinburgh, 3.
- 1928.*RICHARDSON, FRANCIS, Blairfalkie, Bridge of Allan.
- 1912.*RICHARDSON, JAMES S., Inspector of Ancient Monuments, Ministry of Works, 122 George Street, Edinburgh, 2.—*Curator of Museum*.
1923. RICHARDSON, JOHN, W.S., 28 Rutland Square, Edinburgh, 1.
1935. RICHMOND, IAN A., M.A., F.S.A., Lecturer in Roman-British Archaeology, University of Durham, King's College, Newcastle-upon-Tyne, 2.—*Curator of Museum*.

1919. RICHMOND, O. L., M.A., Professor of Humanity, University of Edinburgh, 5 Belford Place, Edinburgh, 4.
1925. RITCHIE, Professor JAMES, M.A., D.Sc., F.R.S.E., Natural History Department, The University, Edinburgh, 31 Mortonhall Road, Edinburgh, 9.
1922. RITCHIE, WILLIAM MUIR, 11 Walkinshaw Street, Johnstone, Renfrewshire.
1907. ROBB, JAMES LL.B., LL.D., 25 Ormidale Terrace, Edinburgh, 12.
1933. ROBB, JAMES A. T., 128 Beechwood Gardens, Ilford, Essex.
1933. ROBERTS, FERGUS, Town Clerk, Kirkcaldy, Kirktonhill, Dumbarton.
1949. ROBERTS, Rev. MATTHEW JOHN, M.A., A.K.C., The Vicarage, 49 Brondesbury Road, Kilburn, London, N.W. 6.
1923. ROBERTSON, ALEXANDER D., M.A., 30 Stevenson Park, Carlisle, Lanarkshire.
1941. ROBERTSON, Miss ANNE S., M.A., 14 Harelaw Avenue, Murrend, Glasgow, S. 4.
1927. ROBERTSON, Rev. ARCHIBALD E., M.A., B.D., 17 Cluny Gardens, Edinburgh, 10.
1937. ROBERTSON, DAVID, M.A., LL.B., S.S.C., J.P., 10 Strathearn Place, Edinburgh, 9.
1937. ROBERTSON, F. W., M.A., Ph.D., Librarian, 6 Gladstone Place, Wick, Caithness.
1938. ROBERTSON, FRANCIS JOHN, J.P., 11 Hailes Terrace, Edinburgh, 11.
1926. ROBERTSON, GEORGE S., M.A., The Cottage, Viewfield Road, Arbroath.
1935. ROBERTSON, RONALD MACDONALD, W.S., 20 Alva Street, Edinburgh, 2.
1928. ROBERTSON, THOMAS ATHOLL, Inveratholl, Alderbury's Hill, Palmer's Green, London, N. 13.
1905. ROBERTSON, W. G. ARCHISON, M.D., D.Sc., F.R.C.P.L., St Margaret's, St Valerie Road, Bournemouth.
1925. ROBERTSON, WALTER MUIR, M.B., Ch.B., Trynlaw, Helensburgh.
- 1913.*ROBERTSON, WILLIAM JAMES, 119 Broomhill Road, Aberdeen.
1939. ROBERTSON-COLLIE, ALEXANDER, 357 Holburn Street, Aberdeen.
1939. ROBINSON, Rev. W. EASON, M.A., L.Th., 4 Pentland Villas, Juniper Green, Edinburgh.
1914. ROBISON, JOSEPH, 14 Castle Street, Kirkcudbright.
1925. ROGER, GEORGE GUTHRIE, M.A., B.Sc., 3 Myrtle Terrace, East Newport, Fife.
1939. ROGER, J. GRANT, B.Sc., 5 Crathie Terrace, Aberdeen.
1928. ROGERSON, Rev. CHARLES, M.A., Villa Roma, Sandown Road, Shanklin, Isle of Wight.
1923. ROLLAND, Miss HELEN M., 6 Murrayfield Drive, Edinburgh, 12.
- 1930.*ROOT, Mrs FREDERICK J., M.A., 6 Elsworth Court, Elsworth Road, London, N.W. 3.
1934. ROSENBLOOM, ISAAC, 20 Shandwick Place, Edinburgh, 2.
1929. ROSS, JAMES, 10 Midmar Gardens, Edinburgh, 10.
1922. ROSS, Major JOHN, Euroa, Langbank.
1913. ROSS, Miss MARSHALL, M.A., 3 Savile Place, Edinburgh, 9.
1926. ROSS, Dr WINIFRED M., Auchendean, Dulnain Bridge, Inverness-shire.
1944. ROWAN, JOHN WILSON, Schoolhouse, Bishopton, Renfrewshire.
1927. ROWATT, THOMAS, O.B.E., M.M., M.I.Mech.E., Director, Royal Scottish Museum, Spottiswoode, Colinton.
1915. RUSK, J. M., O.B.E., J.P., S.S.C., Clinton House, Whitehouse Loan, Edinburgh, 10.
1936. RUSSELL, ARTHUR W., M.A., W.S., 25 Hope Terrace, Edinburgh, 10.
- 1930.*RUSSELL, DAVID, LL.D., Rothes, Markinch, Fife.
1943. RUSSELL, FRANK, 47 Princess Street, Monifieth, Angus.
1943. RUSSELL, IAN ROBERT, M.A. (Hons. Hist.), Park House, Annan Road, Dumfries.
1914. RUSSELL, JOHN, 2 Brunton Place, Edinburgh, 7.
1938. RUSSELL, RAYMOND (no address).
1923. ST VIGEANS, The Hon. LORD, LL.D., 15 Grosvenor Crescent, Edinburgh, 12.
- 1925.*SALVESEN, IVER R. S., 6 Rothesay Terrace, Edinburgh, 3.
1911. SANSONE, RONALD COURTNEY, Officer in Charge, Municipal Museum, Stockport.
1930. SCARTH, HENRY W., Skail, Sandwick, Stromness, Orkney.
1936. SCHOLES, W., M.A., The Abbey, Fort Augustus.
- 1910.*SCOBIE, Major IAIN H. MACKAY, 1st Seaforth Highlanders, The Museum, Edinburgh Castle.
1926. SCOTT, Lieut.-Colonel D. HAY, M.B., Ch.B., 25 Wychwood Close, Bognor Regis, Sussex.
1935. SCOTT, Rev. JAMES G. DAWSON, M.A., F.S.A., Manse of Logiealmond, Perthshire.
1949. SCOTT, Rev. J. E., M.A., Elmshurst, Heworth, Gateshead-on-Tyne.
1938. SCOTT, Miss JUDITH D. GUILLUM, Honorary Secretary of the Southern Provincial Committee of the Central Council for Care of Churches, 94A Cromwell Road, South Kensington, London, S.W. 7 (during war at Earlsam, Dunster Somerset).

1935. SCOTT, LAURENCE GRAY, Vingolf, Lerwick, Shetland.
- 1931.*SCOTT, SIR WARWICK LINDSAY, K.B.E., D.S.C., B.A., Oxford and Cambridge Club, Pall Mall, London, S.W. 1.
1915. SCRYMGEOUR, NORVAL, Fellow of the Institute of Journalists, Summerfield, Longforgan, by Dundee.
1937. SEMPLE, WALTER, M.A., LL.B., Neidpath, Whitecraigs, Renfrewshire.
- 1927.*SHARP, ANDREW M., 8 South Inverleith Avenue, Edinburgh, 4.
1917. SHAW, JULIUS ADOLPHUS, Mus.D Trin Coll. Dublin, L.Mus., T.C.L., "Rosevine," Trevone, Padstow, N. Cornwall.
1918. SHAW, MACKENZIE S., W.S., 1 Thistle Court, Edinburgh, 14.
1943. SHAW, MISS MARY SPORRS, M.A., Egyptologist, Manchester Museum, 5 Carril Gardens, Fallowfield, Manchester, 14.
- 1930.*SHAW, R. CUNLIFFE, M.Sc., F.R.C.S.Eng., L.R.C.P. (London), 24 Ribblesdale Place, Preston, Lancashire.
1937. SILVER, A. S., M.B., Ch.B.(Edin.), B.A.(Oxon.), The Old Parsonage, Davidson's Mains, Edinburgh, 4.
1940. SIM, STEWART, Architect, 57 Newington Road, Edinburgh, 9.
1926. SIMPSON, RICHARD J., Hermitage, Corstorphine, Edinburgh, 12.
1919. SIMPSON, WILLIAM DOUGLAS, M.A., D.Litt., F.S.A., Librarian, Aberdeen University, The Chaplains Court, Chanonry, Old Aberdeen,—*Librarian*.
1908. SINCLAIR, COLIN, M.A., Ph.D., F.R.I.B.A., St Margaret's, 50 Ralston Avenue, Crookston, Glasgow, S.W. 2.
1943. SKELTON, JOSEPH, 85 Wood Street, Maryport, Cumberland.
1909. SKINNER, ROBERT TAYLOR, M.A., F.R.S.E., 35 Campbell Road, Edinburgh, 12.
1929. SIMON, ALEXANDER M., Moyhall, Kirkintilloch.
1922. SMYLL, THOMAS YOUNG, Scheitor, Castlewood, Jedburgh.
1933. SMITH, ALEXANDER, M.A., F.R.S.A., 1 Nixon Street, Newcastle-upon-Tyne, 2.
1930. SMITH, MISS ANNETH, Addistoun, Ratho, Newbridge, Midlothian.
1910. SMITH, DAVID BAIRD, C.B.E., LL.D., 5 Kirklee Terrace, Glasgow, W. 2.
1934. SMITH, JOHN, B.Sc., Chief Conservator of Forests, Sudan Government, Birkhill, Coalburn, Lanarkshire.
1936. SMITH, JOHN FREDERICK (Chief Librarian, Liverpool Public Libraries), Tutnal, 20 Gwydrin Road, Calderstones, Liverpool, 18.
1938. SMITH, W. S. KENNEDY, D.A., Ayr Academy, Ayr.
1943. SOMMERVILLE, JOHN, 9 Hermitage Terrace, Edinburgh, 10.
1921. SOUTAR, CHARLES GEDDES, F.R.I.B.A., 15 South Tay Street, Dundee.
1935. SOUTER, GEORGE, Drynie, Dingwall.
1928. SPACKMAN, CYRIL SAUNDERS, R.B.A., L.R.I.B.A., R.M.S., F.R.S.A., F.R.S.A.I., The Studio, Edridge Road, Croydon, Surrey.
- 1910.*SPENCER, Colonel CHARLES LOUIS, C.B.E., D.S.O., Warmanbie, by Annan, Dumfriesshire.
1939. SQUAIR, MISS OLIVE M., 16 Kingsley Road, Wimbledon, London, S.W. 19.
1943. STARK, WM. MACNAB, 58 North Court Street, Dundee.
1935. STEER, KENNETH A., M.A., Ph.D., 27 York Place, Edinburgh, 1.
1920. STEPHEN, Rev. WILLIAM, B.D., D.D., Carn Dearg, 68 Gardiner Road, Edinburgh, 4.
- 1913.*STEEHLINSON, A. CLARK, M.B., Ch.B., Arston Gold Mines, Prester, Gold Coast Colony.
1930. STEVENS, C. E., M.A., Fellow of Magdalen College, Oxford.
1933. STEVENSON, Lt.-Colonel EDWARD DAYMONDE, M.C., C.V.O., Secretary and Treasurer, The National Trust for Scotland, 4 Great Stuart Street, Edinburgh, 3.
1927. STEVENSON, Major HERBERT H. M'D., Culter House, Coulter, Biggar, Lanarkshire.
1913. STEVENSON, PERCY R., 7A Young Street, Edinburgh, 2.
1939. STEVENSON, ROBERT B. K., M.A., 31 Mansionhouse Road, Edinburgh, 9,—*Keeper of the Museum*.
1937. STEVENSON, WILLIAM B., D.D., LL.D., D.Litt., Emeritus Professor, 31 Mansionhouse Road, Edinburgh, 9.
1922. STEWART, ANDREW, H.M. Inspector of Taxes, 2 Caid Drive, Partick, Glasgow, W. 1.
1922. STEWART, CHARLES, C.A., Bracken Bruach, Downfield, Dundee.
- 1925.*STEWART, IAN R. H., 11 Farquhar Road, Wimbledon Park, London, S.W. 19.
1944. STEWART, JOHN, M.A., 146 Seafield Road, Aberdeen.
- 1917.*STEWART, JOHN ALEXANDER, of Inchmahome, Bonaly, Cynder, Helensburgh.
1939. STEWART, Major JOHN PHILIP, M.D., F.R.C.S. Ed., R.A.M.C., 18 Chester Street, Edinburgh, 3.
1942. STEWART, MISS KATE F., B.A., Aldclune, Lanark Road, Balerno.
1941. STEWART, ROBERT PRINGLE, 46 Woodburn Avenue, Airdrie.
1925. STIRLING, Colonel ARCHIBALD, of Garden, Sandyholes, Kippen, Stirlingshire.

1942. STOBIE, REV. CHARLES IAN GRAHAM, M.A. The Manse, Uyeasound, *via* Lerwick, Shetland.
- 1930.*STRATHCONA AND MOUNT ROYAL The Right Hon. LORD, 14 South Audley Street, London, W. 1.
1942. STRONACH, GEORGE W., 6 St Ninian's Road, Corstorphine, Edinburgh, 12.
1929. STRUTHERS, Major JAMES G., D.S.C., Ardmaddy Castle, by Oban.
- 1939.*STUART, LORD DAVID, Woodend, Rothesay, Bute.
1939. STURROCK, EDWIN D., 2 Mohson Street, Dundee.
1933. STURROCK, J. FREDERICK, 417 Blackness Road, Dundee.
1938. SUTHERLAND, FRANCIS G., W.S., 2 Arboretum Road, Edinburgh, 4.
1937. SUTHERLAND, HAROLD HACO, Solicitor, Aikerness, Wellpark Avenue, Kilmarneock, Ayrshire.
1923. SUTTELL, ARNOLD, L.R.I.B.A., M Inst M. & C.Y.E., M.R.S.I., Halifax Chambers, Oxford Street, Harrogate, Yorkshire.
1916. SWAN, T. ALKMAN, F.R.I.B.A., F.R.I.A.S., 7 St Colme Street, Edinburgh, 3.
- 1916.*TAIT, EDWYN SEYMOUR REID, Bydin, St Olaf Street, Lerwick, Shetland.
1933. TAIT, JAMES, 431 E. Congress Street, Detroit, Mich., U.S.A.
1942. TAYLOR, REV. ALEXANDER REID, M.A., 119 Great Western Road, Aberdeen.
1927. TAYLOR, CHARLES, 51 Kerr Street, Kirkintilloch.
1917. TAYLOR, FRANK J., 148 Westgate Road, Newcastle-on-Tyne.
1930. TAYLOR, JOHN, Collegehill House, Roslin, Midlothian.
1938. TEGGIN, JAMES RONALD, M.A., 78 Framingham Road, Brooklands, Cheshire.
1939. TERRELL, HENRY, 13 Queenshaugh Drive, Stirling.
1941. TERRY-LLOYD, JOHN, 18 Berkeley Court, Summerstrand, Port Elizabeth, South Africa.
- 1926.*THOMPSON, Professor HAROLD WILLIAM, A.M., Ph.D., New York State College, Albany, New York State, U.S.A.
- 1906.*THOMSON, DAVID COOPER, J.P., D.L., Inveravon, Broughtly Ferry.
1920. THOMSON, GEORGE CLARK, Barrister-at-Law, P.O. Box 880, Swift Current, Saskatchewan, Canada.
1930. THOMSON, JAMES CORNWALLIS, C.A., 13 Loudon Terrace, Glasgow, W. 2.
1913. THOMSON, JOHN GORDON, S.S.C., 54 Castle Street, Edinburgh, 2.
1927. THOMSON, J. F. GORDON, M.A., Advocate, 26 Heriot Row, Edinburgh, 3.
1931. THOMSON, J. MILLER, W.S., 5 St Colme Street, Edinburgh, 3.
1926. THOMSON, LESLIE GRAHAME, A.R.S.A., A.R.I.B.A., F.R.I.A.S., "Strongara," West Linton, Peeblesshire.
1927. THOMSON, Mrs. Callands, West Linton, Peeblesshire.
1937. THOMSON, ROBERT, B.Sc., Ph.D., A.M.I. Mech. E., R.A.F.V.R., F.R.S.E., "Moorfield," Butler's Cross, Aylesbury, Bucks.
1936. THOMSON, THOMAS LAUDER, M.D., D.P.H., County Medical Officer, Dunbartonshire, Lauderdale, Dunbarton.
1911. THORBURN, Lt.-Col. WILLIAM, O.B.E., Woodville, St John's Road, Annan, Dumfriesshire.
1930. THORNEYCROFT, WALLACE, of Dalrulzion, Chalmington, Dorchester.
1932. THRIEPLAND, PATRICK WYNHAM MURRAY, Dryburgh Abbey, St Boswells.
- 1933.*THYNE, JAMES COWAN, St Helens, Downfield, Dundee.
1930. TOD, THOMAS M., West Brackly, Kinross.
1924. TOD, WILLIAM A., Shore Street, Bowmore, Isle of Islay.
1935. TOLLAN, REV. JAMES, The Manse, 3 Belmont Church Road, Strandtown, Belfast.
1941. TOMLINSON, HAROLD ELLIS, M.A. (Hons.), F.F.T.Com., 119 Fleetwood Road, Thornton-le-Fylde, Blackpool.
1936. TOWILL, REV. EDWIN S., M.A., B.D., 32 Blacket Place, Edinburgh, 9.
- 1902.*TRAILL, H. LIONEL NORTON, F.R.G.S., Capt., 4th Highland Light Infantry, c/o Captain M. P. Traill-Smith, R.N., "Wainsford," Herschel Road, Claremont, Cape Town, South Africa.
1939. TRENCH, G. MACKENZIE, O.B.E., F.R.I.B.A., F.S.I., Glen Morven, Forest Drive, Kingswood, Surrey.
- 1922.*TROFFER, GEORGE CLARK, M.D., Ch.B. (Edin.), D.P.H. (Aberd.), F.R.S.I., Blacmar, 17 Haslemere Road, Crouch End, London N. 8.
1921. TULLIS, Major JAMES KENNEDY, Baingle Brae, Tullibody, by Stirling.
1925. TULLOCH, JAMES, M.A., 5 Wilton Gardens, Glasgow, N.W.
1934. TULLOCH, ROBERT G., M.A., 10 East Camus Road, Fairmilehead, Edinburgh, 10.
1922. TURNBULL, JOHN W., Ardlamont, Kames, Tighnabruaich, Argyll.
1937. TYZACK, FRANCIS JAMES, A.R.P.S., F.R.S.A., The Manse, Lea Road, Drontfield, near Sheffield.
- 1917.*URQUHART ALASTAIR, D.S.O., Latimer Cottage, Latimer, near Chesham, Bucks.

- 1935.*VALENTINE, WILLIAM HARRIS, The Mansion House, Auchterhouse, by Dundee.
1936. VAN GIFFEN, Professor A. E., Biologisch Archaeologisch Instituut, Rijks Universiteit, Poststr. 6, Groningen, Holland.
- 1933.*VEITCH, GEORGE, C.A., 14 Chalmers Crescent, Edinburgh, 9.
1928. WALKER, ALEXANDER, 424 Great Western Road, Aberdeen.
1928. WALKER, Rev. GEORGE A. EVERT, Minister of Parish of Benholm, Manse of Benholm, Johnshaven, Montrose.
1937. WALKER, NINIAN, Solicitor, Commercial Bank Buildings, Dunfermline.
1936. WALLACE, DAVID SWAN, W.S., 6 Eton Terrace, Edinburgh, 4.
1928. WALLACE, JAMES, M.A., Rector of Vale of Leven Academy, "Glendevon," Alexandria, Dunbartonshire.
1936. WALLACE, Rev. WILLIAM ANGUS, The Manse of Guthrie, by Forfar.
- 1927.*WALLIS, W. CYRIL, Assistant Keeper, Art and Ethnographical Department, Royal Scottish Museum, 53 Spottiswoode Street, Edinburgh, 10.
1919. WARR, The Very Rev. CHARLES LAING, C.V.O., M.A., D.D., Minister in St Giles Cathedral, Dean of the Most Ancient and Most Noble Order of the Thistle, and Dean of the Chapel Royal in Scotland, 63 Northumberland Street, Edinburgh, 3.
1923. WARRACK, MALCOLM, 7 Oxford Terrace, Edinburgh, 4.
1932. WASON, C. R., 1 Woodlands Terrace, Glasgow, C. 3.
1916. WATERSON, DAVID, R.E., Bridgend House, Brechin.
1924. WATERSTON, CHARLES B., 25 Howard Place, Edinburgh, 4.
1904. WATLING, H. STEWARD, Architect, Plas Conwy, Gogarth, Llandudno, N. Wales.
- 1907.*WATSON, CHARLES B. BOOG, F.R.S.E., 24 Garscube Terrace, Murrayfield, Edinburgh, 12.
1924. WATSON, GEORGE MACKIE, F.R.I.B.A., 17 East Claremont Street, Edinburgh, 7.
1913. WATSON, G. P. H., F.R.I.B.A., Royal Commission on Ancient and Historical Monuments of Scotland, 27 York Place, Edinburgh, 1.
1922. WATSON, HENRY MICHAEL DENNI, C.A., 12 Henderland Road, Murrayfield, Edinburgh, 12.
- 1927.*WATSON, JOHN HILL, of Grangehill, Beith, Ayrshire.
- 1908.*WATSON, JOHN PARKER, W.S., Greystane, Kinellam Road, Murrayfield, Edinburgh, 12.
- 1927.*WATSON, WILLIAM ELDER, O.B.E., J.P., Moray Bank, Elgin.
1912. WATSON, WILLIAM J., M.A., LL.D., D.Litt.Celt., F.R.S.E., Eminent Professor of Celtic Languages, Literature and Antiquities, University of Edinburgh, 17 Merchiston Avenue, Edinburgh, 10.
- 1907.*WATT, JAMES, LL.D., W.S., F.F.A., 7 Blackford Road, Edinburgh, 9.
1908. WATT, The Very Rev. LAUCHLAN MACLEAN, M.A., D.D., LL.D., Kinloch, Lochcarron, Ross-shire.
1913. WATT, WILLIAM, C.E., 60 E. Claremont Street, Edinburgh, 7.
- 1923.*WATT, WILLIAM J. C., M.B., Ch.B., 71 High Street, Paisley.
1942. WAUGH, WILLIAM, Palace Knowe, Beattock, Dumfriesshire.
1937. WEDDERBURN, Sir ERNEST MACLAGAN, M.A., LL.B., D.Sc., LL.D., Deputy Keeper of His Majesty's Signet, 6 Succoth Gardens, Edinburgh, 12.
- 1928.*WEIR, Rev. HAROLD GEORGE MULLO, M.A., The Manse, Dalry, Kirkcudbrightshire.
1925. WEIR, JAMES MULLO, S.S.C., 21 Mayfield Terrace, Edinburgh, 9.
1942. WEIR, JOHN, J.P., F.R.G.S., M.I.Mech.Eng., Dunbarton, Alderton Hill, Loughton, Essex.
1939. WEIR, JOHN LA, M.A., 24 St Vincent Place, Glasgow, C. 1.
1927. WEIR, WALTER, 18 Cathkin Road, Langside, Glasgow, S. 2.
1932. WESTON, PERCY WILLIAM, F.R.G.S., F.C.S., F.Z.S., F.R.I.L.S., F.R.E.S., Villa Chappart, Tangier, Morocco.
1937. WESTWATER, ALEXANDER, Publisher, Station Road, Lochgelly, Fife.
1939. WHITE, JOHN, 18A Arthur Street, Edinburgh, 6.
1909. WHITTAKER, CHARLES RICHARD, F.R.C.S., F.R.S.E., Lynwood, 27 Hatton Place, Edinburgh, 9.
1937. WIGHTMAN, A. STUART, F.R.A.I., F.Z.S. (no address).
1897. WILLIAMS, H. MALLAM, J.P., Tilehurst, 34 Southern Road, West Southbourne, Bournemouth, Hants.
1930. WILSON, ARTHUR, J.P., 6 Saltoun Gardens, Glasgow, W. 2.
1935. WILSON, ARTHUR W., "Rannardale," Venturefair Avenue, Dunfermline.
1933. WILSON, DAVID, A.R.I.A.S., 15 Prospect Bank Place, Leith, Edinburgh, 6.

1933. WILSON, JAMES PEARSON, Millbank, Privick Mill, Ayr.
1934. WILSON, Major MAURICE J. H., The Queen's Own Cameron Highlanders, Ashmore, Bridge of Cally, Perthshire.
1932. WILSON, P. DOUGLAS, M.Inst.C.E., 78 Comiston Drive, Edinburgh, 10.
- 1927.*WILSON, ROBERT, 139 Princes Street, Edinburgh, 2.
1920. WISHART, DAVID, Pittarrow, Abernethy, Perthshire.
- 1934.*WISHART, FREDERICK, 632 King Street, Aberdeen.
1930. WRIGHT, ALEXANDER, L.R.I.B.A., 110 Blythswood Street, Glasgow, C. 2.
1938. WRIGHT, Rev. RONALD SELBY, M.A., The Manse of the Canongate, Edinburgh, 8.
1927. WRIGHT, Rev. WILLIAM, M.A., B.D., Minister of the Parish of Wardlawhill, 21 Clincarthill, Rutherglen.
1925. WYNESS, J. FENTON, A.R.I.B.A., A.I. Archts.Scot., 45 Salisbury Terrace, Aberdeen.
1938. YATES, Miss AGNES AITKEN, B.Sc., Greenvale, Ardbeg Road, Rothesay.
1937. YOUNG, Mrs H. NUGENT, 10 Onslow Court, Drayton Gardens, London, S.W. 10.
1933. YOUNG, ROBERT STORER, J.P., Hon. Sheriff-Substitute of Fife and Kinross, Duncroft, Kinross.
1934. YOUNG, T. P. W., A.R.I.B.A. (Flying Officer, R.A.F.), c/o Messrs Glyn Mills & Co. (Holts Branch), Kirkland House, Whitehall, London, S.W. 1.
1929. YOUNGER, Mrs J. P., Arnsbrae, Cambus, Clackmannanshire.
- 1939.*YULE, BRIAN JOHN GEORGE, 28 Queen's Crescent, Edinburgh, 9.

CORRESPONDING MEMBERS

1937. ANDERSON, R. W., Whitestone Knowe, Peebles.
 1923. BLACK, GEORGE F., Ph.D., 325 Watson Avenue, Lyndhurst, New Jersey, U.S.A.
 1927. BREMNER, SIMON, Mid Town, Freswick, Caithness.
 1928. FORTUNE, JOHN ROBERT, Airhouse, Oxtou, Berwickshire.
 1915. MATHIESON, JOHN, F.R.S.E., 42 East Claremont Street, Edinburgh, 7.
 1936. MOAR, PETER, Commission Agent, 4 Thorfinn Street, Lerwick, Shetland.
 1915. MORRISON, MURDO, Lakefield, Bragar, Lewis.
 1931. SMITH, SAMUEL, Mumrills, Laureston, near Falkirk.
 1933. YORSTON, JAMES, Yorville, Rousay, Orkney.

HONORARY FELLOWS

1908. Professor H. DRAGENDORFF, Freiburg i. Baden, Johan von Weirhstrasse 4.
 1923. M. L'ABBÉ H. BREUIL, D.L.C., Hon. Professor Dept. of Archæology, University of the Witwatersrand, Johannesburg, South Africa.
 Professor FRANZ CUMONT, 19 Corso d'Italia, Rome.
 Sir G. F. HILL, K.C.B., M.A., LL.D., Litt.D., F.B.A., F.S.A., Knottocks, Knotty Green, Beaconsfield, Bucks.
 FRANK GERALD SIMPSON, M.A., 44 Branipton Road, Carlisle.
 A. M. TALLGREN, Professeur Universitetet, Helsingfors, Finland.
 1926. Professor Dr philos. A. W. BRØGGER, Bestyrer av Universitetets Oldsaksamling, Tullinlokken, Oslo, Norway.
 O. M. DALTON, M.A., F.B.A., Holford, Somerset.
 Professor Dr ERNST FABRICIUS, Geheimer Rat, Goethestrasse 44, Freiburg im Breisgau, Germany.
 Sir ARTHUR KEITH, LL.D., M.D., D.Sc., F.R.C.S., F.R.S., Conservator of the Museum and Hunterian Professor, Royal College of Surgeons of England; Past-President of the Royal Anthropological Institute of Great Britain and Ireland, and of the Anatomical Society. Master of the Buckston Browne Farm, Downe, Farnborough, Kent.
 Dr R. PARIBENI, Director of the Institute of Archæology of Rome, Museo Nazionale Romano, Rome.
 1927. DON HERMILO ALCALDE DEL RIO, Torrelavega, Santander, Spain.
 1931. Mrs M. E. CUNNINGTON, 33 Long Street, Devizes, Wiltshire.
 Professor Dr ROBERT ZAHN, Director bei den Staatlichen Museen, Honorar-professor an der Universität, Am Lustgarten, Berlin, C.2.

1933. Professor Dr philos. HAAKON SHETELIG, Bergens Museums Oldsamling, Bergen, Norway.
1935. Professor GERHARD BERSU, Hutchison Internment Camp, Douglas, Isle of Man.
1939. Professor Dr ANDREAS ALFOLDI, Pázmány-Universitat, Múzeum-Korut 6-S, Budapest, VIII.
O. G. S. CRAWFORD, H.M. Ordnance Survey, Southampton.
1942. Dr M. I. ARTAMONOV, Director of the Institute of Material Culture in the Academy of Sciences, Leningrad.

LADY ASSOCIATE

1900. Professor Emeritus M. A. MURRAY, University Museum of Archaeology and of Ethnology, Downing Street, Cambridge, 99 Blinco Grove, Cambridge.

SOCIETIES, INSTITUTIONS, &c., EXCHANGING PUBLICATIONS.

- | | |
|---|--|
| Architectural, Archaeological, and Historic Society of Chester and North Wales. | Royal Archaeological Institute of Great Britain and Ireland. |
| Belfast Natural History and Philosophical Society. | Royal Commission on Ancient and Historical Monuments of Scotland. |
| Berwickshire Naturalists' Club. | Royal Commission on the Ancient and Historical Monuments and Constructions in Wales and Monmouthshire. |
| Bristol and Gloucestershire Archaeological Society. | Royal Historical Society. |
| Buchan Club. | Royal Institute of British Architects, London. |
| Buteshire Natural History Society. | Royal Irish Academy. |
| Cambrian Archaeological Association. | Royal Numismatic Society. |
| Cambridge Antiquarian Society. | Royal Society of Antiquaries of Ireland. |
| Carmarthenshire Antiquarian Society. | Scottish Ecclesiological Society. |
| Courtauld Institute of Art. | Shropshire Archaeological Society. |
| Cumberland and Westmorland Antiquarian and Archaeological Society. | Society for the Promotion of Roman Studies |
| Derbyshire Archaeological Society. | Society of Antiquaries of London. |
| Dumfriesshire Natural History and Antiquarian Society. | Society of Antiquaries of Newcastle-upon-Tyne. |
| Edinburgh Architectural Association. | Somersetshire Archaeological and Natural History Society. |
| Edinburgh Geological Society. | Stirling Natural History and Archaeological Society. |
| Elgin Literary and Scientific Society. | Surrey Archaeological Society. |
| Essex Archaeological Society. | Sussex Archaeological Society. |
| Gaelic Society of Inverness. | Third Spalding Club. |
| Glasgow Archaeological Society. | Viking Society for Northern Research. |
| Hampshire Field Club and Archaeological Society. | Wiltshire Archaeological Society. |
| Hawick Archaeological Society. | Yorkshire Archaeological Society |
| Historic Society of Lancashire and Cheshire. | |
| Institute of Archaeology, Liverpool. | |
| Kent Archaeological Society. | |
| Orkney Antiquarian Society, Kirkwall. | |
| Perthshire Society of Natural Science. | |
| Powysland Club. | |
| Royal Anthropological Institute. | Archaeological Survey of India. |
| | British School at Rome. |

Colombo Museum, Ceylon.
 Royal Canadian Institute, Toronto.
 Royal Ontario Museum of Archaeology, Toronto, 5,
 Canada.
 University Museum, Dunedin, New Zealand.

FOREIGN SOCIETIES, UNIVERSITIES,
 MUSEUMS, &c.

Académie des Inscriptions et Belles Lettres, Paris.
 Académie des Sciences, Leningrad, U.S.S.R.
 Académie des Sciences d'Ukraine, Kieff.
 Académie Royale Serbe, Belgrade.
 Administration des Monuments, Riga, Latvia.
 Anthropologische Gesellschaft, Vienna, Ostmark,
 Germany.
 Antiquarische Gesellschaft, Zurich.
 Archaeological Institute of the Imperial University
 of Kyoto, Japan.
 Archæologisches Institut D. Kon. Ung. Franz
 Joseph-Universität, Szeged, Hungary.
 Archæologisches Institut der Pázmány Universität,
 Budapest.
 Archæologisches Institut des Deutschen Reiches
 Römisch-Germanische Kommission, Frankfurt
 am Main.
 Associació Catalana d'Antropologia, Etnologia i
 Prehistòria, Barcelona Universität, Spain.
 Bosnisch-Herzegovinisches Landes-Museum, Sara-
 jevo, Jugoslavia.
 Bureau of Ethnology, Washington.
 California University, Berkeley.
 Commissione Archeologica Comunale di Roma.
 Cornell University Library, Ithaca, New York.
 Čsl. státní archæologický ústav (Institut archéolo-
 gique de l'Etat tchécoslovaque) Praha, Re-
 publika československá, Czechoslovakia.
 Department of Antiquities in Palestine, Jerusalem.
 Deutsch-ausländischer Buchtausch, Berlin.
 École d'Anthropologie de Paris.
 Faculté des Sciences de Lyon.
 Field Museum of Natural History, Chicago.
 Foreningen til Norske Fortidsmindesterkers
 Beværing.
 Göteborg och Bohuslans Fornminneforeningen.
 Göttingen University.
 Historische und Antiquarische Gesellschaft, Basel.
 Historischer Verein für Niedersachsen.
 Institut Archéologique Bulgare, Sofia.
 Institut de Paléontologie Humaine, Paris.
 Istituto Italiano di Antropologia, Rome.
 Kiel University.
 Kongelige Norske Videnskabs-Selskab, Trondhjem.

Landesanstalt für Volksheitskunde, Halle a Saale,
 Saxony.
 Landesmuseum, Hannover.
 Landesmuseum Nassauischer Altertümer zu Wies-
 baden.
 Leipzig University.
 Musée Archéologique Erasie Majewski de la Société
 des Sciences de Varsovie, Poland.
 Musée d'Art et d'Histoire, Geneva, Switzerland.
 Musée Guimet, Paris.
 Musée National Suisse à Zurich.
 Museum, Bergen, Norway.
 Museum of Northern Antiquities, Oslo.
 National Bohemian Museum, Prague, Czecho-
 slovakia.
 National Museum, Zagreb, Yugoslavia.
 Nordiska Museet, Stockholm.
 Norsk Folkemuseum, Oslo, Norway.
 Oslo University, Norway.
 Peabody Museum, Cambridge, Mass., U.S.A.
 Prähistorische Kommission der Akademie der
 Wissenschaften in Wien, Ostmark, Germany.
 Prussia-Museum, Königsberg (P).
 Reale Accademia Nazionale dei Lincei, Rome.
 Rhein. Landesmuseum, Trier.
 Rijks-Museum van Oudheden, Leiden.
 Römisch-Germanischen Zentral Museum, Mainz,
 Germany.
 Royal Academy of History and Antiquities,
 Stockholm.
 Royal Society of Northern Antiquaries, Copenhagen.
 Schlesischer Altertumsverein, Breslau.
 Smithsonian Institution, Washington, U.S.A.
 Société d'Anthropologie de Paris.
 Société des Antiquaires de l'Ouest.
 Société Archéologique du Midi de la France.
 Société Archéologique de Montpellier.
 Société Archéologique de Moravie.
 Société Archéologique de Namur.
 Société des Bibliophiles, Brussels.
 Société Finlandaise d'Archéologie, Helsingfors.
 Société d'Histoire et d'Archéologie de Gand.
 Société Nationale des Antiquaires de France.
 Société Préhistorique Française, Paris.
 Société Préhistorique Polonaise.
 Société Royale d'Archéologie, Bruxelles.
 Stadtisches Museum für Völkerkunde, Leipzig.
 State Historical Museum, Moscow.
 Stavanger Museum, Stavanger, Norway.
 Swiss Heraldic Society.
 Türk Tarih Kurumu, Ankara, Turkey.
 University Library, Lund, Sweden.

University Library, Tartu, Esthonia.
 Upsala University.
 Verein für Nassauische Alterthumskunde, Wiesbaden.
 Verein von Alterthumsfreunden im Rheinlande, Bonn.
 Wiener Præhistorische Gesellschaft, Ostmark, Germany.

PERIODICALS.

Atlantis: Actas y Memorias de la Sociedad Española de Antropología, Etnografía y Prehistoria y Museo Etnológico Nacional, Madrid.
L'Anthropologie, Paris.
Bulletin archéologique polonais, Warsaw.

LIBRARIES, BRITISH.

Athenæum Club Library, London.
 Baillie's Institution, Glasgow.
 Bodleian Library, Oxford.
 British Museum Library.
 Chetham's Library, Manchester.
 Church of Scotland College Library, The Mound, Edinburgh.
 Free Library, Edinburgh.
 Free Library, Liverpool.
 Mitchell Library, Glasgow.
 National Library of Scotland, Edinburgh.
 National Library of Wales, Aberystwyth.

SUBSCRIBING LIBRARIES, ETC.

Abbey, The, Fort Augustus.
 American Philosophical Society.
 Ashmolean Museum, Oxford.
 Birmingham Public Libraries—Reference Library.
 Carnegie United Kingdom Trust—The Scottish Central Library for Students, Dunfermline.
 Chicago University Library, Chicago, U.S.A.
 Cleveland Public Library, Ohio, U.S.A.
 *Columbia University.
 Department of British and Mediæval Antiquities, British Museum.
 Detroit Public Library, Detroit, U.S.A.
 Dr Hay Fleming Library, The University, St Andrews.
 *Faculty of Procurators' Library, Glasgow.
 Falkirk Archaeological and Natural History Society.
 Falkirk Public Library.
 Free Public Library, Boston, Massachusetts, U.S.A.
 Harvard College, U.S.A.
 Henry E. Huntington Library and Art Gallery, San Marino, California, U.S.A.
 Institute of Accountants and Actuaries in Glasgow.
 Jesus College, Oxford.
 John Rylands Library, Manchester.

Ordnance Survey Library, Southampton.
 Public Record Office Library, London.
 Royal Library, Windsor.
 Royal Scottish Museum Library, Edinburgh.
 Scottish National Portrait Gallery Library.
 Scottish Record Office, Historical Department.
 Signet Library, Edinburgh.
 Trinity College Library, Dublin.
 University Library, Aberdeen.
 University Library, Cambridge.
 University Library, Edinburgh.
 University Library, Glasgow.
 University Library, St Andrews.
 Victoria and Albert Museum Library, London.

LIBRARIES, FOREIGN.

Bayerische Staatsbibliothek, Munich, Bavaria.
 Bibliothèque d'Art et d'Archéologie, Université de Paris.
 National Library, Paris.
 National Library, Vienna.
 Newberry Library, Chicago, U.S.A.
 Preussische Staatsbibliothek, Berlin.
 Public Library, Hamburg.
 Royal Library, Copenhagen.
 Royal Library, Stockholm.
 Sächsische Landesbibliothek, Dresden.

Metropolitan Museum of Art, New York, U.S.A.
 National Museum of Wales, Cardiff.
 New York Public Library, New York.
 Pennsylvania Historical Society, Philadelphia, U.S.A.
 Princeton Theological Seminary, New Jersey, U.S.A.
 Public Library, Aberdeen.
 Public Library, Dundee.
 Public Library of Victoria, Melbourne, Australia.
 Public Library, Civic Center, San Francisco, California, U.S.A.
 State Historical Society of Wisconsin, Madison, Wisconsin, U.S.A.
 *Stornoway Public Library, Island of Lewis.
 University College, Dublin.
 University Library, Durham.
 University Library, Leeds.
 University Library, Sheffield.
 University of London, W.C. 1.
 University of Manchester.
 University of Michigan, Ann Arbor.
 University of Minnesota, U.S.A.
 University of Pennsylvania, Philadelphia, Pa., U.S.A.
 Yale University Library, New Haven, Connecticut, U.S.A.

PROCEEDINGS

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND

ONE HUNDRED AND SIXTY-FOURTH SESSION, 1943-1944

ANNIVERSARY MEETING, *30th November 1943.*

W. MACKAY MACKENZIE, M.A., D.LITT., H.R.S.A.,
Vice-President, in the Chair.

Dr George Mackay and Mr F. T. Macleod were appointed Scrutineers of the Ballot for Office-Bearers.

The Ballot having been concluded, the Scrutineers found and declared the List of the Council for the ensuing year to be as follows:—

President.

Sir JOHN STIRLING MAXWELL, Bart., K.T., D.L.

Vice-Presidents.

W. MACKAY MACKENZIE, M.A., D.LITT., H.R.S.A.

Sir FRANCIS J. GRANT, K.C.V.O., LL.D., Lord Lyon King of Arms.
WILLIAM ANGUS.

Councillors.

The Hon. Sir HEW H. DALRYMPLE, K.C.V.O., H.R.S.A., *Representing the Board of Trustees.*

W. A. MUNRO, D.LITT.

IAN G. LINDSAY.

ALEXANDER O. CURLE, C.V.O., LL.D.,
F.S.A.

J. M. DAVIDSON, O.B.E., F.C.I.S.

Professor J. DUNCAN MACKIE, M.C.,
M.A.

VOL. LXXVIII.

W. G. C. HANNA, O.B.E., C.A.

JAMES CURLE, LL.D., F.S.A.

THOMAS INNES OF LEARNEY, Albany
Herald.

DAVID ROBERTSON, M.A., LL.B., S.S.C.,
J.P.

Secretaries.

DOUGLAS P. MACLAGAN, W.S., | ANGUS GRAHAM, M.A., F.S.A.

*For Foreign Correspondence.*Professor V. GORDON CHILDE, D.Litt., | Professor W. M. CALDER, M.A., LL.D.,
D.Sc., F.B.A., F.P.S.A. | F.B.A.*Treasurer.*

J. BOLAM JOHNSON, C.A.

Curators of the Museum.

JAMES S. RICHARDSON, | IAN A. RICHMOND, M.A., F.S.A.

Curator of Coins.

ROBERT KERR, M.A.

Librarian.

W. DOUGLAS SIMPSON, M.A., D.Litt.

A Ballot having been taken, the following were elected Fellows: Stephen Charles de Lancey Aitchison; Henry Frederick Ashton, J.P.; Rev. James B. P. Bulloch, B.D.; James Russell Crawford; John Donald, LL.O.B.; James Fletcher, J.P.; R. I. Greenblatt, LL.R.C.P., LL.R.C.S., LL.R.F.P.S.Glas.; D. G. Henderson; Edward Henderson; Walter R. Humphries, M.A.(Hons.); Pastor M. C. S. Johnston; Lt.-Col. Harold Andrew Balvaird Lawson; Peter Neil McFarlane, F.R.S.E.; Rev. John Macintyre, M.A., B.D.; William J. Mackay; F. Severne Mackenna, M.A., M.B.; Duncan Macpherson; D. Kenneth Mills; Captain George Ness, LL.D.S., R.F.P.S.(Glas.); William Thomas Palmer, F.R.G.S.; Geoffrey Martin Rhodes, B.A.(Oxon.), LL.B.; Miss Marsali Ross, M.A.; Frank Russell; Ian Robert Russell, M.A.(Hons. Hist.); William McNab Stark; John Sommerville; A. Clark Stephenson, M.B., Ch.B.; William Watt, C.E.

The Secretary read the following List of Members deceased since the last Annual Meeting: *Honorary Fellows*—Professor Marcellin Boule; Mrs Arthur Strong, C.B.E., M.A., LL.D., Litt.D., F.S.A. *Corresponding Member*—David Tait. *Fellows*—The Countess Vincent Baillet de Latour; Captain Robert Greenhill Black, late I.A.; Rev. F. Odo Blundell; William Brongh; Robert Lockhart Bryden; Rev. John A. Cameron, M.A., B.D., Hon. C.F.; John Douglas Boswell Campbell, W.S.; Alfred W. Cox; Thomas Crockett, M.A., D.Litt.; Hugh Davidson; Arthur Hope Drummond Dixon; Colonel George Henry Edington, T.D., D.L., M.D., D.Sc., F.F.P.S.; John T. Ewen, O.B.E., B.Sc., F.R.S.E.; Thomas Wilson Fish, J.P., M.Inst.N.A.; John Hamilton; Walter B. Harris; John Reid Hewison; James Hoult, F.R.Hist.S.; Thomas Maule Guthrie; William Ingram, K.C., D.F.C.; Captain William Henry Knowles, F.S.A.; P. A. Leitch, M.Inst.C.E.; Gordon Nasmyth Mackintosh; James McLintock, J.P.; Rev. Thomas Miller; George Duncan Paterson; Miss H. M. Leslie Paterson; John Robertson, J.P.; Kenneth Sanderson, W.S.; William B. Shaw, F.R.Hist.Soc.; Thomas H. Vale; Professor S. P. Varma; W. Percival Westell, F.L.S., F.R.S.A.; Rev. S. Gordon F. Wilson.

The Secretary read the following Report by the Council on the affairs of the Society:—

The Council beg to submit to the Fellows of the Society their Report for the year ending 30th November 1943.

Fellowship.—The total number of Fellows on the Roll at 30th November 1942 was 887
At 30th November 1943 the number was 846

being a decrease of 41

The number of new Fellows added to the roll during the year was 22, while 34 died, 9 resigned, and 20 allowed their membership to lapse. Considering the times through which we are passing, it is a cause for congratulation that the number of Fellows should be so well maintained.

Proceedings.—Volume LXXVII of the *Proceedings* is in the press. It contains 8 papers dealing with subjects dating from prehistoric to post-mediaeval times, together with a number of Notes reporting finds of archaeological interest and importance.

The Museum.—The number of acquisitions during the year was 366, of which 363 were donations and 3 were purchases. The outstanding additions assignable to early periods are a stone axe of quartzite found at Nearhouse, Orkney, and presented by Mr Walter G. Grant, F.S.A.Scot.; a polished axe of porphyritic greenstone from Berwickshire, presented by Mr R. H. Dodds; a beaker urn of clay found in a cist at Boghead Farm, Pitsligo, Aberdeenshire, given by Mrs Helen Simpson, Moss-side, Rathen; and an encrusted cinerary urn found at Melgund Muir, Aberlemno, Angus, presented by Mr Stewart A. Smith. Relics from a late Viking house at Freswick Links, excavated by Professor V. G. Childe, were donated by Admiral Sir Edwyn Alexander Sinclair, G.C.B.; and a socketed spear-head of iron, of Viking type, from North Uist, by Mr George Beveridge.

The majority of the objects acquired by donation during the past year belong to a late period, and the most important is a bequest of six early Scottish silver spoons by Mr George Henderson. A collection of over three hundred Communion Tokens was presented by Mrs Goalen, and a leaden bulla of Pope Honorius III, found near Inchaffray Abbey, by Mr C. S. T. Calder, F.S.A.Scot.

Some interesting by-gones were given, and these included an eighteenth-century sampler; a "minishing" glass, also of the eighteenth century; two archery scoring-cards, in use about a hundred years ago, and a "pricker" for marking the cards, presented by Miss Maria Stewart; a military gorget of the time of George I, presented by Mr James S. Richardson, F.S.A.Scot.; and fishing tackle, comprising landing-nets with

whalebone frames, fishing reels, horse-hair lines, and books of salmon flies, in use about 1870, presented by Sheriff Brown, F.S.A.Scot.

The Library.—Additions to the Library amounted to 26 volumes acquired by donation and 4 by purchase.

Exchange of publications is still maintained with Allied and neutral countries, although occasionally with some difficulty.

The blocks in possession of the Society have recently been re-arranged, four new cases having been acquired for this purpose.

Rhind Lectureship.—The Rhind Lectures for 1943 were given by our Honorary Fellow, Mr O. G. S. Crawford, F.S.A., his subject being "The Topography of Roman Scotland." The lectures for 1944 are to be given by Professor V. G. Childe on a subject connected with Prehistoric Scotland.

The Gunning Fellowship.—No award was made for 1943.

The Chalmers-Jervise Prize.—This prize was not advertised.

(Signed) W. MACKAY MACKENZIE,
Vice-President.

Dr Alexander O. Curle moved the adoption of the Report and the motion was seconded by Mr W. G. C. Hanna, O.B.E., C.A.

It was also moved by Mr James S. Richardson and seconded by Mr W. G. C. Hanna that representation should be made to the proper authorities with a view to having the St Andrew's flag flown from all Government buildings in Scotland on Saint Andrew's Day. The suggestion met with the unanimous approval of the meeting.

Dr Alexander O. Curle proposed a vote of thanks to Professor V. G. Childe for the valuable work he had done for the Society and as Editor of the *Proceedings*. This was seconded by Mr James S. Richardson, and the meeting thereupon accorded a hearty vote of thanks to Professor Childe.

Professor Childe thanked the meeting for their kind appreciation of his services and said the Society was equally indebted to the members of the Editorial Committee who must remain anonymous.

I.

UNRECORDED MICROLITHS FROM TENTSMUIR, DEESIDE,
AND CULBIN. By A. D. LACAILLE, F.S.A., F.S.A.Scot.*Read February 5, 1944.*

For long Birkwood, Banchory, on the right bank of the Dee, stood out as the most northerly point in the distribution of microliths in the British Isles. Recently, however, it has been determined that small stone implements dressed in microlithic style occur even farther north. The following are the principal which have been noted: Some artifacts from Inchmarlo Cottage on the left bank of the Dee at Banchory ¹; micro-burins from the Culbin Sands, Moray ²; a few steeply trimmed tools from Freswick Bay, Caithness ³; knives and points with battered backs from the Orkneys.⁴

The specimens from Inchmarlo Cottage and Culbin proclaim that the classic Tardenoisian method of dividing flakes was practised at both places. But there is as yet no evidence north of the Moray Firth that flakes were so treated, although the distinctive implements bear characteristic steep trimming.

TENTSMUIR SANDS. FIFE.

Sparse as it is, the distribution of microliths beyond the Dee emphasizes their absence from the North Sea basin between the valley of that river and the region south of Forth. Up to date the few microliths found in East Lothian,⁵ and near Westruther, Berwickshire,⁶ were the only links between the prolific Tweedside grounds and north-east Scotland.

Microliths from the Tentsmuir Sands, Fife, now help to bridge the gap. A few specimens from here are housed in the Dundee Public Museum, and an important group is preserved in the University Museum, St Andrews. The first lot, which I noticed several years ago, was seen to include forms characteristic enough to permit me to add Tentsmuir to maps ⁷ showing the diffusion of microliths in Scotland. The other I identified in the summer of 1941 following Professor V. Gordon Childe's advice that I should examine the collection of stone implements in the care of Professor D. Waterston. I shall first describe this series, reserving to later pages

¹ *Proc. Soc. Ant. Scot.*, vol. lxx. (1935-36), pp. 420 and 434.

² *Ibid.*, vol. lxxvi. (1941-42), pp. 103 ff.

³ *Trans. Glas. Arch. Soc.*, vol. ix., pt. i. (1937), p. 63.

⁴ *Proc. Soc. Ant. Scot.*, vol. lxix. (1934-35), pp. 251-62.

⁵ *Ibid.*, vol. lxi. (1926-27), p. 327.

⁶ *Proc. Berwickshire Nat. Club*, vol. xv. (1894-95), p. 168.

⁷ E.g. in *Trans. Glas. Arch. Soc.*, vol. ix., pt. i. (1937), p. 57; *Proc. Soc. Ant. Scot.*, vol. lxxv. (1940-41), p. 83.

comments on some specimens sent me recently by Mr Edwin D. Sturrock, Dundee.

Time has not altered the Tentsmuir implements (fig. 1, Nos. 1-19). They are manufactured in brownish and grey flint, except No. 17 which is of chaledony. The good quality of the stone allowed of that delicate treatment which is well expressed in the products.

The series includes no tiny objects. Most of its components compare in size with the larger specimens produced at our principal microlithic sites. It comprises types rarely noticed in Scotland. Some of these testify to the survival and diffusion of certain ancient forms: others throw light on methods of manufacture. Common tool-types occur, but they deserve attention because of their workmanship. The artifacts make up an outstanding group of pure Mesolithic facies, and the first to be illustrated from a region which should provide much information on the early colonization of Scotland.

The Industry.—Blades struck from well-flaked cores were the mainstay of the Tentsmuir microlithic folk. Although I am unable to figure examples of cores, yet I have seen enough flint pebble-tools from Tentsmuir to give me reason to believe that the raw stone consisted of small nodules from a local boulder clay of the North Sea drifts. The untreated blades Nos. 1-3 are characteristic of the material that was worked up into implements.

The set figured in the first row shows a passage from the plain blade, No. 1, to the retouched symmetrical penknife form. No. 2 is injured by use on the right edge. Both long margins of No. 3, the left convex near the extremity and the right concave, bear traces of utilization. A well-defined implement is represented by No. 4, slightly worn on the left but steeply dressed down the upper part of the opposite side. In No. 5 is an even more shapely object and one unusually large of its kind. It is abruptly and delicately trimmed on the right edge, near the upper end. Its constricted base was achieved by very careful working on both sides.

The best represented form is the blade ending in a point produced by obliquely trimming the upper part of one edge, the left in the case of Nos. 6-9. In No. 10 the same side was retouched but at the lower end, which is actually slighter than the upper. On account of this, and because the bulb of percussion has been almost entirely removed by the secondary working, the specimen may justifiably be turned up and viewed as figured.

No. 11 is classed with all its foregoing retouched companions, but both its convex edges are blunted and it is fashioned in a thicker piece of flint. Micro-burin technique accounted for the division of the flake.

The row Nos. 12-15 is composed of implements dressed on the whole of one or more edges. The first (No. 12) is improvised in a waste spall. No. 13, brought to a point by oblique trimming, is also finely dressed along

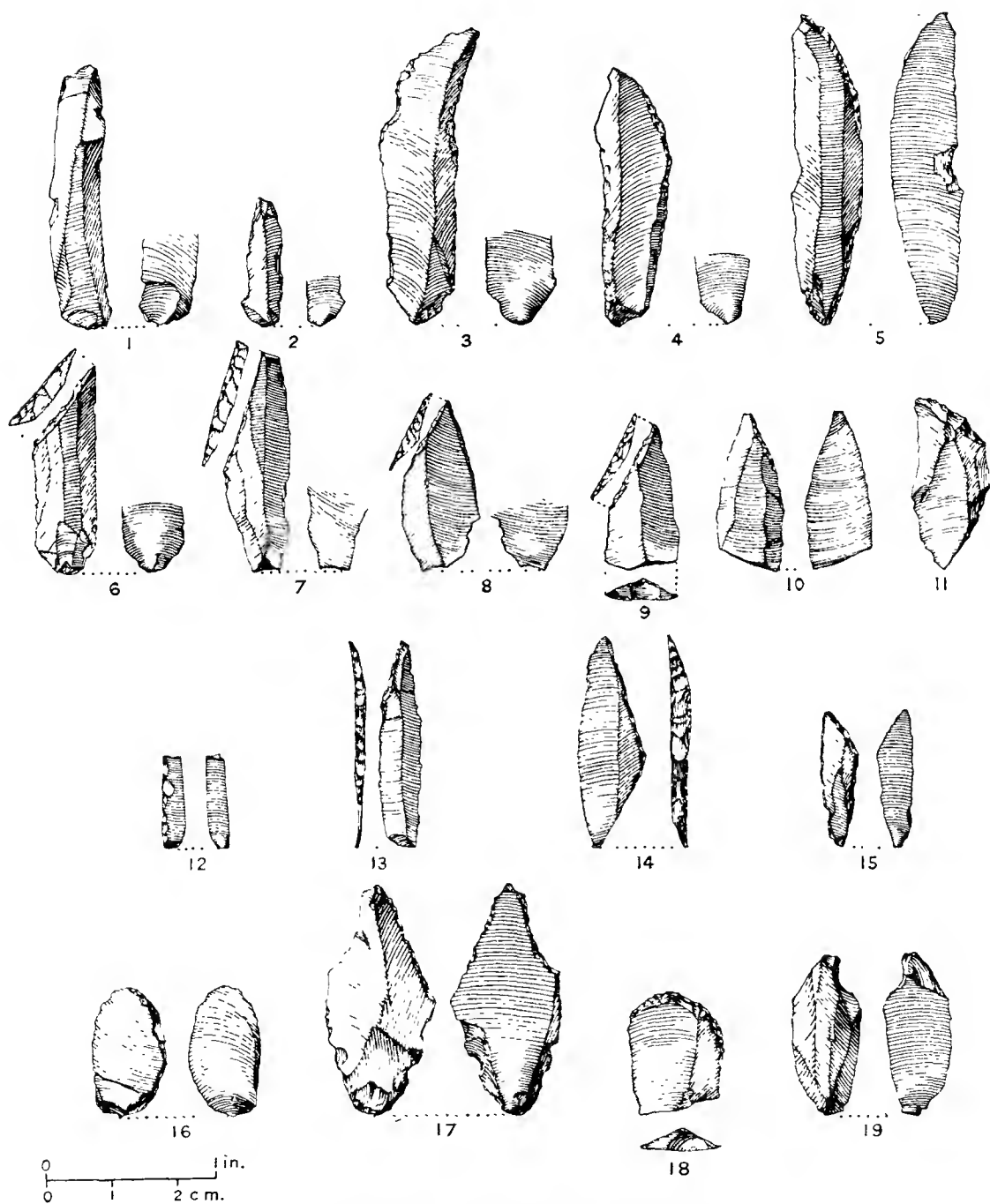


Fig. 1. Microlithic industry from Tentsmuir Sands.

the left almost down to its base. The secondary working involves more of the bulbar surface than of the edge proper.

From its appearance No. 14 might be regarded as a true geometric form. But it is in fact a point obliquely blunted at both ends made in a complete flake. Its companion, No. 15, also triangular but trimmed along all its edges, belongs to the same category. While retouch on No. 15 has hardly impaired the bulb of percussion, it has left but the scantiest vestiges of the swelling in No. 14.

The petaloid flake No. 16 was made to serve as a side-scraper by steeply dressing one of its convex edges. Similar retouch was applied to the upper part of the oblique right edge of the thickish flake No. 17. With inverse trimming along its opposite edge the treatment produced a sort of compound tool, not unlike the obliquely trimmed points. These two pieces may be compared with No. 18. The fine steep dressing upon this small scraper on the end of a truncated flake equals that of any other artifact figured here.

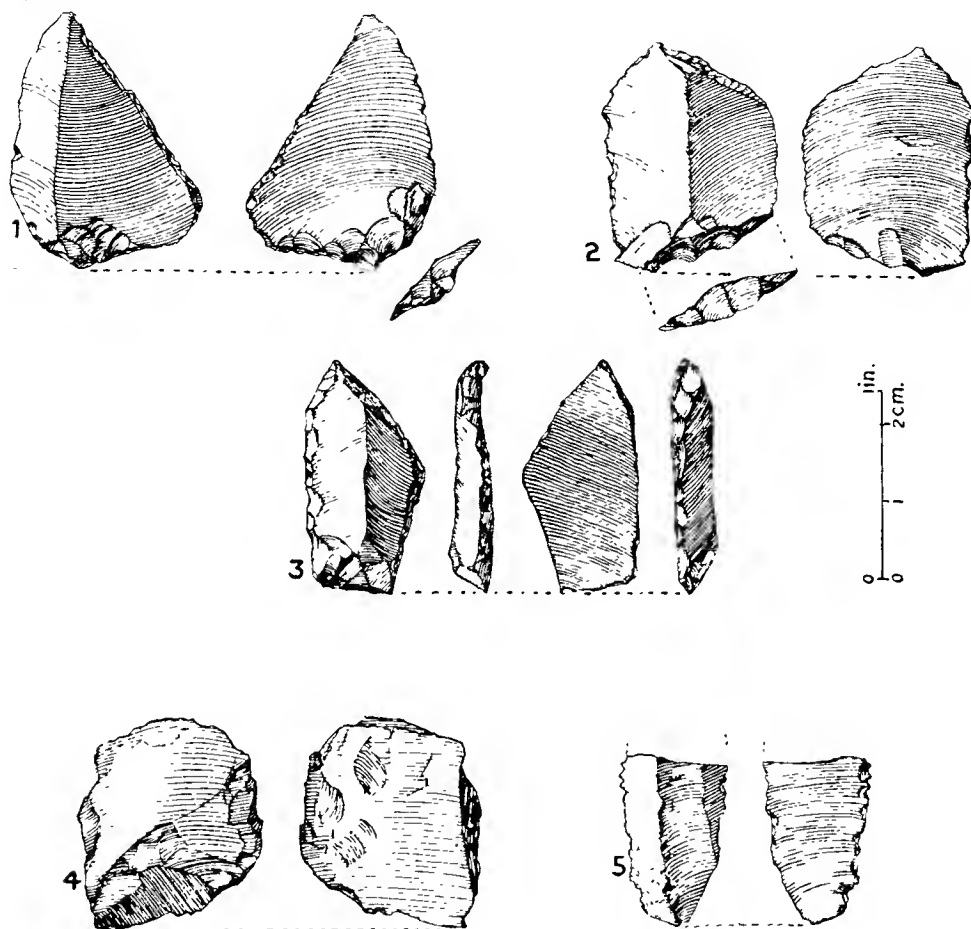
Some selected unaltered flints (fig. 2, Nos. 1-3) from Tentsmuir, found by the late Mr Alexr. Hutcheson, F.S.A.Scot., and now preserved by the Dundee Naturalists' Society, are noteworthy for their shapes. They are trimmed in the same way as the foregoing objects, with which they may presumably be ranged. No. 1 is an exceptionally wide flake-implement of dark material, its right edge obliquely and steeply dressed. On its nether face considerable wear of the long edges is seen, and also the bold retouch of the short margin next the bulb of percussion. The butt has also received attention. In the broad piece No. 2, grey flint, the short upper edge on the right bears fine dressing, and part of the bulbar swelling has been treated from underneath. The long edges of this example are injured by use. A third specimen, No. 3, fawn cherty flint, its obliquely blunted right edge meeting the opposite and equally abruptly dressed edge in a thick working point, may have served as a graver. Its lower end has been truncated and carefully retouched.

Technology.—Most of the retouched forms in the Tentsmuir microlithic industry are worked in complete (*i.e.* bulb-bearing) flakes. Thus, they are executed in the simple Upper Palaeolithic tradition of abruptly dressed flake-tools.

In the implements made in complete flakes the bulb of percussion is low, probably because the parent flakes or blades were detached from the core by means of a hardwood or bone punch. That the flanks of such bulbs were very easily eliminated by the blunting process appears in fig. 1, Nos. 10 and 14, and fig. 2, No. 2.

Some objects show that specialized methods of preparing flakes were practised also. They throw additional light on our stone industries and help to place the Tentsmuir series. Thus, the perfect micro-burin, fig. 1,

No. 19. and the finished implement, fig. 1, No. 11, made in a section of flint obtained from a flake by micro-burin technique, prove that a method peculiar to Tardenoisian culture was adopted at Tentsmuir.



1-3. Tentsmuir;

4-5. Stannergate.

Fig. 2. Nos. 1-3. Abruptly retouched implements from Tentsmuir Sands. Nos. 4-5. Artifacts found stratified in early post-glacial raised beach, Stannergate.

Another way of dividing flakes is evidenced by the obliquely trimmed point, fig. 1, No. 9, and the end-scraper, fig. 1, No. 18. Both are executed in bulbless flakes which have faceted butts. The basal scars indicate that

these flakes were cut by a process believed to be cognate with micro-burin technique and very like that followed to-day in the English gun-flint industry.¹

Even in their original state the parent flakes of Nos. 9 and 18 were too short to be snapped across a predetermined line. Inquiries and experimentation, however, show that they must have been sliced by the method recaptured by M. Ed. Vignard, Paris.² His experiments were suggested by a study of truncated flakes of Levallois facies and waste from his second archæological level at Sebil, Upper Egypt. These relics would show that the prehistoric knapper's aim was to reduce the thick butts of the flakes.

The procedure is described in detail by Vignard, who regards it as the forerunner of the full micro-burin technique evidenced in the later horizon at Sebil. The treatment indicated by the Egyptian and Scottish specimens consisted in placing the flake bulbar face upward with the required line of separation across a ridged anvil, and striking it centrally with a pointed hammer upon the spring of the bulb.

Just as micro-burins resulting from the division of flakes were discarded by the artisan, so were the fragments from the refining of flake-butts. Vignard's descriptions and figured examples of characteristic waste butt-ends from Sebil are answered by small scarred flake-fragments I have identified in the late Rev. Dr. Wm. Edgar's collection from Ballantrae, Ayrshire.

Cultural Affinities.—Unfortunately, it is not known in what conditions the Tentsmuir implements were discovered. But whether or not we are confronted with surface-finds, the aspect of the whole group is new to Scottish prehistory.

The absence of true geometric shapes, the preponderance of obliquely trimmed blades and the lack of diminutive microliths rank the Tentsmuir set with Mr Francis Buckley's non-geometric or "broad blade" industries of the Pennines.³ Around Huddersfield, Yorkshire, these comprise precisely the same forms, with the obliquely trimmed blade predominant as at Tentsmuir. In both regions the simple yet characteristically dressed end-scraper is found, and also the micro-burin and artifacts which can be connected with it. There is every reason to believe that the non-geometric industries of the Pennines are earlier than the geometric.⁴ Also, the former are manifestly related to the lower Zonhoven industry of Belgium, which antedates the final Tardenoisian of that country with its rich geometric element. The early Zonhoven industry closely resembles the more ancient Remouchamps industry,⁵ an immediate successor of the Magdalenian.

¹ *Antiquity*, 1937, pp. 201-7.

² *Compte Rendu*, Xème Congrès Préhistorique de France, 1931, pp. 66-106.

³ *A Microlithic Industry of the Pennine Chain. Related to the Tardenoisian of Belgium* (1924).

⁴ J. G. D. Clark, *The Mesolithic Age in Britain*, 1932, p. 24.

⁵ E. Rahir, *L'Habitat Tardenoisien des Grottes de Remouchamps* (1921).

Naturally, some forms common in Magdalenian industries persisted in the Tardenoisian. An example is the knife or point abruptly dressed along one edge, and sometimes provided with a sort of tang, the implement suggesting La Gravette and even earlier ancestry. At Remouchamps the obliquely trimmed point is well represented. There, too, occurs the end-scrapers of Upper Palaeolithic type with its minimal dressing.

Analogies exist in Britain where Upper Palaeolithic culture developed along evolved Aurignacian lines as the Creswellian¹ after the peak of the New Drift glaciation (Würm II). It is well established by now that the origins of the earliest known Scottish culture lie mainly in the Creswellian,² flourishing contemporaneously with the Magdalenian of France, the Creswellian of England, however, was only feebly reinforced by the Continental culture.

Some La Gravette forms prevalent in the English Aurignacian survived with obliquely trimmed points or blades in the Creswellian. Degenerate perhaps but still very similar, some of these implement forms also occur in early post-Upper Palaeolithic levels in the Creswell Crags type-stations, north-east Derbyshire.³ Comparable knives or points and the obliquely trimmed point on the broad blade were produced farther north as the early Mesolithic culture spread. Beyond the Pennines they are well represented in the English non-geometric assemblages as far as Northumberland.⁴ Thence they extended up the Tweed valley and northward.

In Scotland penknife forms appear constantly in microlithic series. Obliquely trimmed points are rare, however, although a few occur in our early Mesolithic assemblages in the raised beach at Campbeltown.⁵ Examples have also been picked up in Tweedside and Deeside with later Tardenoisian types and a sprinkling of geometric shapes. At Tentsmuir, however, the old penknife form and the obliquely trimmed point predominate without any admixture of advanced ingredients.

The Tentsmuir series can be no more accurately dated than our surface-found microlithic collections. Nevertheless, its facies is definitely earlier than that of these groups which are marked by their developed elements, and which include very few of the forms distinguishing the Tentsmuir range. However, some of the Deeside finds are suggestive, namely the untrimmed blades, micro-burins and related objects yielded by excavation in the low river terrace at Birkwood, Banchory.⁶ They compare with the basic materials from the Tentsmuir Sands.

¹ D. A. E. Garrod, *The Upper Palaeolithic Age in Britain*, 1926, p. 194.

² *Proc. Soc. Ant. Scot.*, vol. lxxv. (1940-41), p. 89.

³ Summarized by Garrod, *op. cit.*, *supra*, pp. 122-56.

⁴ Summarized by Clark, *op. cit.*, *supra*, pp. 28-29.

⁵ *Proc. Soc. Ant. Scot.*, vol. lxxv. (1940-41), p. 70.

⁶ *Ibid.*, vol. lxx. (1935-36), pp. 423, 429-30, and fig. 3.

THE DISTRIBUTION OF MICROLITHS.

Researches will doubtless show that Tardenoisian strains passed from the east of Scotland into Clydesdale and so to the west by the long open Biggar Gap and/or by the Central Plain. Howbeit, early Tardenoisian elements reached Kintyre by the Early Atlantic climatic phase as the post-glacial sea was encroaching upon the land.¹ Hence, they could have spread in Scotland earlier than was formerly thought. But they could hardly have become widely distributed until the land had emerged after the maximum marine transgression in Late Atlantic times.

By the time the great estuaries had shrunk Tardenoisian culture was well developed. Its evolved types spread, either as absorbed elements of more advanced cultures, or fairly pure as the kit of small communities whose environment compelled their members to live as simple Mesolithic food-gatherers.

One cannot yet say if Tentsmuir was but a backwater reached late by traditions of early Tardenoisian culture or if it was the seat of early post-glacial industries. The second alternative does not seem untenable because traces of early occupation have been found in lower Firth of Tay localities. These indications consist of a kitchen-midden with flint artifacts from deposits of the raised beach (*Littorina*) near Dundee.²

In common with other Scottish littoral sandy tracts Tentsmuir has yielded relics testifying to long occupation.³ At or near several such sites Mesolithic forms occur, some stratified. As similar conditions are more than hinted in the Tay estuary, it is thought investigations at Tentsmuir should be rewarded. This seems the more probable when it is remembered that routes from the south to the Tay basin were not fraught with greater difficulties than those leading to the west and south-west.

It has been suggested that the Oban hybrid culture of Late Atlantic times, typically represented in caves and shell-mounds related to the so-called 25-foot (*Littorina*) raised beach, caused the Tardenoisian to be concentrated in Scotland south of the Firth of Forth.⁴ The writer, however, has not enough confidence to endorse this view because the wide field is as yet virtually unexplored. Nevertheless, the evidence available shows that microlithic developments in the south-west and west differ somewhat from those in the east. The study of these developments on the Atlantic side of

¹ *Proc. Soc. Ant. Scot.*, vol. lxxv. (1940-41), p. 70.

² *Ibid.*, vol. xiii. (1878-79), pp. 303-7; *ibid.*, vol. xx. (1885-86), pp. 166-69.

I have examined the flints found stratified inside the raised beach at Stannergate by Mr Allan Mathewson. Being atypical they are disappointing, although indicative of a real industry. One (fig. 2, No. 4) is a nodule evidently taken from a drift deposit, and struck probably to test the material. Its counterparts abound in the Mesolithic assemblages of Campbeltown. The other (fig. 2, No. 5), a broken corticed and apparently peat-stained flake, resembles the delicate Mesolithic examples of south-western Scotland and Northern Ireland.

³ *Proc. Soc. Ant. Scot.*, vol. xxxix. (1904-5), pp. 345-19.

⁴ Hallam L. Moxley, jun., *The Irish Stone Age*, 1942, p. 193.

the great water-parting belongs properly to a wide survey of the Hiberno-Scottish province and its early post-glacial cultures. But it may be said now that, whereas in this region microliths seem rather to occur as products of comprehensive industries ranging from our early Mesolithic to Bronze Age, in the North Sea basin they appear usually in groups of fairly pure Tardenoisian facies. This suggests a slow infiltration of these cultural elements into the confined western province¹ by a few possible routes such as were afforded by cols and the Central Plain.

Our knowledge of Tardenoisian facies in the North Sea basin, amplified by the Tentsmuir artifacts, is added to by a few more specimens from this extensive region. How these compare with the objects already discussed appears from the drawings and the comments which follow.

INCHMARLO COTTAGE, BANCHORY.

Microliths of the same order as that so well represented on the right bank of the Dee around Birkwood, Banchory, occur also on the left bank of the river at Inchmarlo Cottage, upstream and two miles west of Birkwood. The examples figured (fig. 3. Nos. 1-4) are a selection of typical products found in scrapings from rabbit-burrows and banks above the Dee.² This set consists of a utilized blade, No. 1, such as would have been struck from a core like No. 2; a narrow blade, No. 3, blunted on the left edge; and No. 4, a characteristically dressed diminutive triangle.

These discoveries supplement Miss H. M. Leslie Paterson's finds opposite Birkwood and Miss M. Outram's near Inchmarlo Cottage.³ The occurrence of all these delicate flints in the Banchory area on both banks suggests that systematic inquiry will show that the Dee valley, particularly the lower reaches, is not less fruitful than Tweedside.

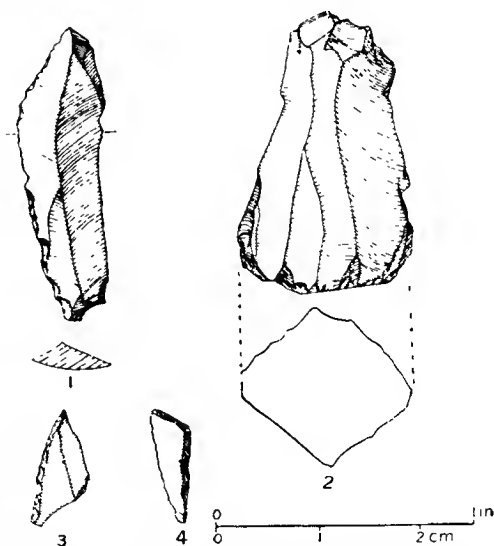


Fig. 3. Series representing a microlithic industry from Inchmarlo Cottage, Banchory.

CULBIN SANDS, MORAY.

A recent sorting of small lots of unclassified flints in the Lewis Abbott Collection, now owned by the Wellcome Historical Medical Museum, London, brought to light some interesting items. These increase the list

¹ Cf. Sir Cyril Fox, *The Personality of Britain*, 1933, p. 27.

² *Proc. Soc. Ant. Scot.*, vol. lxx. (1935-36), p. 434.

³ *Ibid.*, vol. lxx. (1935-36), p. 420.

of microliths from sandy sites beyond Banchory. They consist of documented specimens from the Culbin Sands which Abbott secured about the beginning of this century.

When the writer described the micro-burins from Culbin he stated ¹ that, although they were then the only pointers to microlithic industry from the



Fig. 4. Microlithic industry from Culbin Sands.

locality, they proved that Tardenoisian technique had been practised here. This fact is further upheld by the examples which can now be grouped with the micro-burins.

All the artifacts from the Culbin Sands are fashioned in the excellent flint of north-east Scotland. The retouched specimens, fig. 4, Nos. 1, 2, and 4, like the micro-burins, Nos. 5 and 6, are of light material, now slightly altered and sand-glazed. No. 3 is of red flint and unchanged.

The diminutive points, Nos. 1 and 2, are blunted down the right and left edges respectively and minutely trimmed on the opposite margin. Viewed from the angle of technology these objects are instructive. Both are executed in the upper ends of narrow blades cut by micro-burin technique. This is clearly proved by the small negative facet at their lower end. In No. 1 this scar is partly dressed down, but entirely spared in No. 2.

¹ *Proc. Soc. Ant. Scot.*, vol. lxxvi. (1941-42), p. 114, fn.

No. 3, though slightly injured at the ends, is recognizable as a steeply dressed rod. As one of the commonest microlithic forms, it can be paired with the similarly treated narrow thin blade, No. 4. This wants the tip but retains the bulb of percussion.

CONCLUSIONS.

The representative specimens from the left bank of the Dee near Inchmarlo Cottage obviously rank with the classic Birkwood collection. Although this assemblage, as we know, includes a few early Tardenoisian types, yet it is essentially one of well-developed forms. In this respect it resembles the Tweedside groups, its facies, like theirs, being purer and earlier than that of the Shewalton (Ayrshire) series.

Counterparts of the Culbin Sands microliths occur in the Deeside and Tweed valley collections. On the score of typology, therefore, it may be said that the Culbin industry is more advanced than that represented by the Tentsmuir "broad blade" products. It may be classed with the "narrow blade" industries of Great Britain, which include geometric shapes.

The writer's conviction that researches should furnish fresh evidence of Tardenoisian penetration in the North Sea basin north of the Firth of Forth is not based solely on the artifacts reviewed above. It is founded also on a consideration of regional topography. This offered relatively easy land-routes to valley and coastal sites of the kind favoured by our microlith-users in Scotland south of Forth. Both banks of the Dee and the Culbin region possessed their respective attractions. Hence, it may be supposed that some comparable intermediate localities were occupied by these folk. This seems the more probable since sites beyond Culbin testify to the farther northward march of microlith manufacturers and Mesolithic culture.

When Mesolithic strains first appeared beyond the Forth estuary and what were their associations are questions which can only be answered by the investigation of sites likely to provide dating factors. Geology, supplemented by chance archaeological finds, long ago indicated the lines researches should follow. Upon the foundations laid down by the pioneers, geologists and palaeobotanists have gradually built up the background of our earliest known cultures, but with little aid from the archaeologist. Still, the success attending methodical inquiry in our part of the Hiberno-Scottish Mesolithic cultural province points to what could assuredly be achieved by close collaboration in the almost untouched field of the North Sea basin, which offers unrivalled scope for the study of early post-glacial conditions.

ACKNOWLEDGMENTS.

Thanks are expressed to the Trustees of the Leverhulme Research Fellowships for a grant which enabled me to travel over much of the ground mentioned in the foregoing and to inspect collections. The facilities courteously extended by our late Fellow, Professor D. Waterston, St Andrews, to study and illustrate material in his charge are gratefully remembered. I am much obliged to Mr Edwin D. Sturrock, F.S.A.Scot., Dundee, for sending me specimens which have permitted me to amplify this communication. Mr Francis Buekley, Greenfield, Yorkshire, kindly placed his notebook at my disposal. This loan and his useful suggestions are greatly appreciated. Lastly, I wish to record my indebtedness to Dr S. H. Daukes, Director of the Wellcome Historical Medical Museum, London, for allowing me to figure the microliths from the Culbin Sands. It is pleasing to record that these objects have been presented by this institution to our National Museum.

II.

MACE-HEADS OF "CUSHION" TYPE IN BRITAIN.

By W. J. GIBSON, C.B.E., F.S.A.Scot.

Read February 5, 1944.

The perforated stone mace-heads of the Bronze Age show an interesting variety of forms, which fall into a number of fairly well-defined groups. In 1925 Mr Reginald A. Smith described and discussed the various shapes, and put forward a systematic classification of the main types.¹ One of the classes dealt with was that known as the "cushion" type.

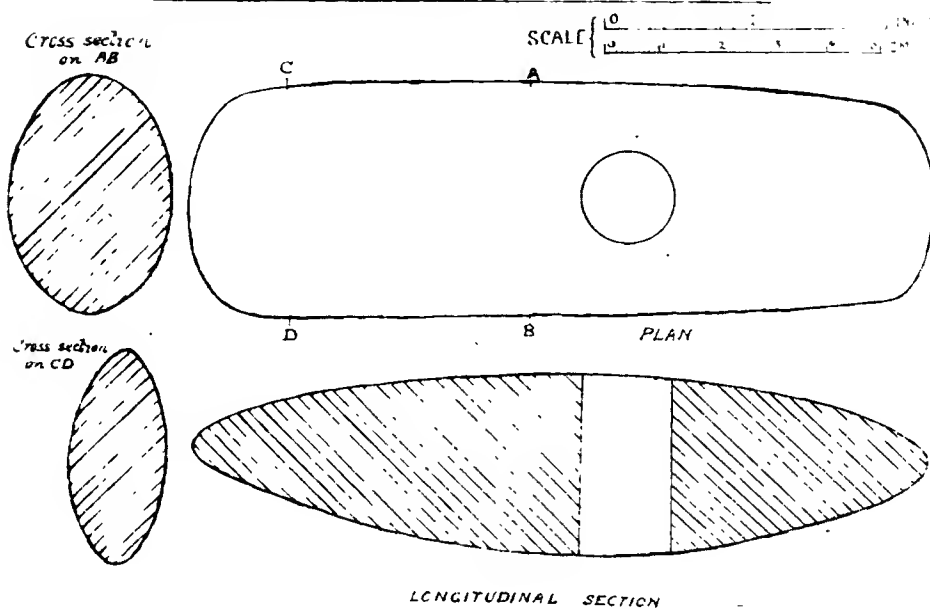
Among certain prehistoric relics from the Outer Hebrides exhibited to the Society of Antiquaries of Scotland in 1934 was a specimen of this type of mace-head which had been found in the Isle of Lewis under five feet of peat. In a note on the exhibit I made comment on the distinctive and specific nature of this type of implement, and on its peculiar geographical distribution in Britain.² I have since given further attention to these points with the aim of examining more fully the details of shape and its variation in this type, the materials used and the limits of distribution; and of determining, if possible, the place of its origin and the purpose it was intended to serve.

The number of specimens in British collections is extremely limited.

¹ R. A. Smith, "The Perforated Axe-hammers of Britain," *Archæologia*, vol. lxxv. p. 77.

² *Proc. Soc. Ant. Scot.*, vol. lxxviii. p. 430.

BRONZE AGE MACE-HEAD OF "CUSHION" TYPE.



"Cushion" Mace-head, Knock, Isle of Lewis.

I have been able so far to trace only some 39. Twenty-six of these, through the courtesy of their custodians, I have had the opportunity of handling and measuring, and although the investigation cannot at present be completed owing to the circumstances of the war, it has seemed desirable that the details so far obtained should be recorded.

This further investigation has again emphasized the remarkably definite and clear-cut nature of the type. Not only is extraordinary fineness and accuracy of craftsmanship a constant feature, but at least a dozen specific characters, in dimensions, shape, and relation of parts, are invariably present. Some of these specific features are so unexpectedly subtle in refinements of detail as to be appreciated only after careful examination of the actual specimens (Pl. I).

The investigation has also confirmed the peculiarly extensive, and at the same time the restricted, character of the distribution of the type. Before discussing this, however, it will be well to describe the peculiarities of shape and material of the existing specimens.

Shape.—The form may be described generally as an oblong of pillow shape with convex curvature of sides, ends, and faces, and having at right angles to the faces a perforated cylindrical haft-hole, drilled with parallel sides (as contrasted with the hour-glass form in the perforated implements of the Neolithic culture). The ends are not sharp-edged but blunted by intentional rounding. The longitudinal section is a long ellipse, and the transverse section at any part a short ellipse. All these curvatures are extraordinarily exact. A curious refinement of the form, noticeable in careful examination, is a slight difference in the curvature of the two faces: one face is slightly more convex than the other, giving the implement a dorsal and a ventral aspect. This difference was of measurable amount in 20 of the specimens examined, probable in 4, and doubtful in 2. As regards breadth, all the complete specimens measured had one end narrower than the other, and the drilled haft-hole in all of them was nearer the narrower end.

The condition of the surviving specimens varies greatly. Some are as perfect as when they passed from the craftsmen's hands: others have suffered from exposure in the soil and show surfaces roughened by uneven weathering. Few show signs of use. In these few the ends are battered, probably by secondary use after their original purpose (whatever it was) had passed out of folk-memory. Of the 39 traced, 12 are broken (in some cases across the haft-hole), only half or less of the original length remaining. All specimens of the type are of relatively small dimensions, the largest less than 6 inches in length. Putting aside those of which the imperfect condition precluded exact measurement, 16 complete specimens (of which detailed particulars are tabulated below) gave the following dimensions. The range in length was from 9.3 to 14.5 cm., with an average of 11.8 cm.

The length as a rule is about $2\frac{1}{2}$ times the greatest breadth,¹ which averages 4.5 cm. There is rather more variation in the greatest thickness, which ranges from 2.8 to 3.8 cm., with an average of 3.3 cm. The diameter of the cylindrical haft-hole ranges from 1.4 to 2.2 cm., with an average of 1.75 cm. A typical specimen of medium size in perfect condition had a weight of 9 ounces.

Variations.—Variations in shape seemed worth considering, as a possible means of grouping some of the specimens. It has already been stated that the type is extremely definite, all the different points of design having been most carefully attended to in the making. In plan, one or two specimens have less rounding than others in the angles of the ends; and one specimen, from the Thames at Hammersmith, is rather wider in proportion to its length than the others. Outside these very slight differences only one easily recognized variation of shape occurs. This is in the position of the greatest breadth. In most of the specimens this is at or near the middle of the length, but in five of those examined it is at the wider end. These hail respectively from Skaill, Grind, and Orphir, all in Orkney, from Fife, and from the Thames. Further, the dimensions of three of these specimens show a surprising uniformity. These, taken to the nearest millimetre, are as follows:—

Specimen.	Total Length in Centimetres.	Greatest Breadth.	Greatest Thickness.	Diameter of Haft-hole.	Length from narrower End to nearer Edge of Hole.
A	11.5	4.6	3.8	$\left. \begin{array}{l} 1.7 \\ 1.65 \end{array} \right\}$	5.3
B	14.5	4.6	3.3	1.8	4.6
C	11.5	4.6	3.8	1.8	5.1

The exactness of the agreement here in so many points seems too close to be a matter of chance. The three specimens, one is inclined to assume, must have come from the hands of the same maker, or have been fashioned by close copying of an identical model. Yet A is from Skaill, in Orkney, B was found in a cairn in Fife, and C in the Thames at Mortlake. All three are made of a compact dark-green stone, though not, I think, identical

¹ There is one marked exception to this—the small “cushion” mace-head found by Lt.-Col. W. Hawley in his excavation of Stonehenge in 1924 (*Ant. Jour.*, vol. v, p. 33). Of this specimen, the dimensions, kindly supplied by Mr Frank Stevens, are as follows: length 5.6 cm., greatest breadth 3.8 cm., greatest thickness 2.5 cm.

in material. All are most accurately finished, and the craftsmanship, including the difficult drilling of the haft-hole, is excellent.

Material.—As regards the material used, hard crystalline rocks have been invariably chosen. Gneiss, granite, porphyry, and various schists and igneous rocks are among those represented—all hard stones, and capable of fine polish. A preference on the whole seems to have been shown for green of various shades from grey to olive, sometimes relieved by crystals of darker minerals, such as augite and hornblende. Some specimens have the ground colour varied by greenish streaks or veins, probably of serpentine or chlorite. The natural colour-banding in some has been used to the best advantage for ornamental effect by the workman's direction of cutting. In sharp contrast with the green or dark colour that is usual, three examples, one from Caithness and two from the Thames, are transversely banded in black and white. The bearing of the selection of the rock material on the problem of distribution will be considered later.

Craftsmanship.—As already indicated, the fine quality of the craftsmanship put on these mace-heads is notable. The uniformity of the shape, with its careful observance of all the special features already pointed out, the accuracy of the dimensions, and the fine surface finish, all emphasize the care and skill bestowed by the makers. In particular one is struck, in measuring the specimens, with the unusually fine workmanship displayed in the drilling of the haft-hole. This, as said, is a cylindrical boring at right angles to the faces, and the exactness of its parallel sides is most striking. Whilst archaeologists agree as to the skill shown in the boring of the hole, and accept its parallel-sidedness as presumptive evidence of Bronze Age date, they differ as to the nature of the boring tool—reed, wood, bone, or metal—used. "Rotatory abrasion" with a tubular instrument seems indicated by unfinished examples of other types of perforated axe-hammers.¹ To some observers a metallic tool is likely, though, in view of the perfection of Egyptian stonework executed with an abrasive but no metal tools, it is by no means proven. The "trueness" of the work, when the toughness and varying hardness of the material are considered, is remarkable. In the best specimens there is no measurable difference in the diameter of the hole throughout. In measuring them one finds that they fully warrant the admiration expressed by several archaeologists for "the perfect boring of such hard stone."² Indeed, in all the highest qualities of craftsmanship the best of these mace-heads rival anything that the most skilful modern lapidary could be asked to produce.

Distribution.—As far as particulars are available, the geographic range of the type in Britain north and south is wide, but is very restricted east

¹ Sir John Evans has described in detail the various methods that have been suggested for the drilling of these perforated implements: *Ancient Stone Implements of Great Britain*, p. 47.

² R. A. Smith, *Archæologia*, vol. lxi. p. 8, and pl. i, fig. 8.

and west. Excluding one specimen of unknown locality, and taking the sites of the finds in order from north to south, the distribution (fig. 1) is as follows: Shetland 2 specimens, Orkney 11 (including 6 which I have examined, along with 2 figured identifiable fragments and 3 complete specimens described by Dr Callander which are probably of the type),¹ Outer Hebrides 2, Caithness 1, Aberdeenshire 1, Angus 1, Perthshire 1, Fife 2, Midlothian 1, Yorkshire 6, Lincolnshire 1, Kent 1, the Thames 5, Wiltshire 2. This gives 22 from Scotland and 16 (one of doubtful locality) from England. To these doubtless fall to be added a few, in collections or private hands, which I may have missed. It will be noticed that of those traced only two belong to the west side of Britain, and these to the extreme north-west corner, as if they had come round the north from the east coast or south from the Orcaes. In number of specimens Orkney stands at the head of the list, followed by Yorkshire and the south of England (the Thames and Wiltshire). There is, however, not sufficient evidence to settle whether the distribution was from Yorkshire northward and southward, from the Thames and Wiltshire northward, or from Orkney and Shetland southward.

In all the specimens examined the stone chosen belongs to the older crystalline rocks, and would have been most easily obtained from the archæan types of the northern areas. But glacial transport has scattered boulders of the older crystalline rocks far and wide, and in any case, material for tools, weapons, and ornaments passed readily, from the earliest times, as objects of trade from place to place, as in the case of flint, pitchstone, obsidian, amber, and bronze. The qualities prized in the selection of the stone were evidently hardness, susceptibility to fine surface finish, and decorative appearance. Dr T. M. Findlay identified the material of the Hebridean and the Fife specimens as a porphyritic rhyolite of a kind found in Britain, as far as is known, only in Northmaven, Shetland.² One of the Thames specimens seems to be of a very similar material. In migratory drifts of implements and pottery into or through Britain, we are more familiar with movements from south to north than in the reverse direction: for example, the axe-heads and round-bottomed pots of the Neolithic culture, the goblets of the Beaker folk, Irish halberds, Yorkshire axes, and cut-and-thrust swords had a northward movement. But there is occasional indication of a drift in the other direction. Jet necklaces, for instance, and possibly the Encrusted Urns,³ spread from the north southwards, and there can be no reasonable doubt, I think, that steatite

¹ Dr Callander called attention some years ago to the unusually large number of perforated stone hammers of various types that had been found in Orkney: "25 in all, broken or whole."—"Certain Prehistoric Relics from Orkney," *Proc. Soc. Ant. Scot.*, vol. lxxv, pp. 93 *et seq.*

² *Proc. Soc. Ant. Scot.*, vol. lxxviii, p. 432.

³ Prof. V. Gordon Childe, *Prehistoric Communities of the British Isles*, p. 150; Sir Cyril Fox, *Ant. Jour.*, vol. vii, p. 123.

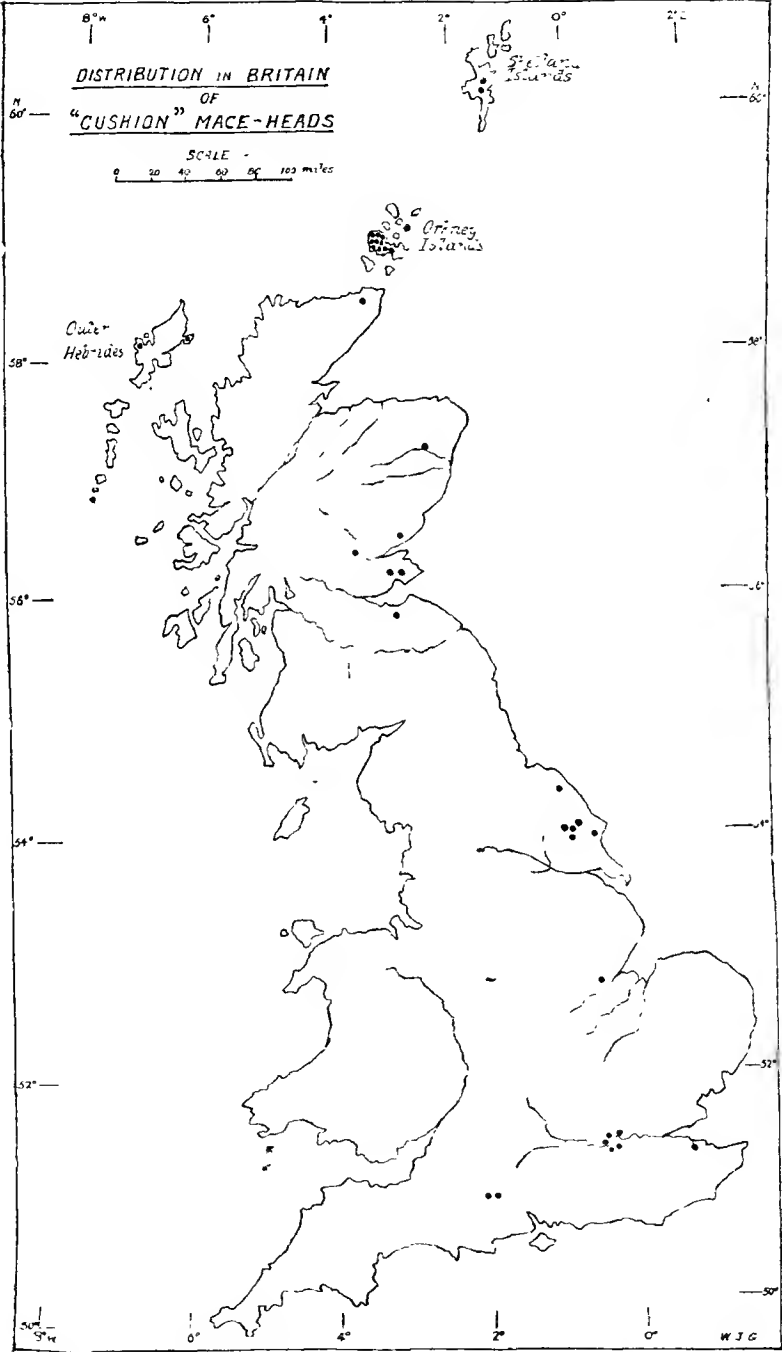


Fig. 1. Distribution map. Note: Position of sites approximate only

pots, found somewhat widely, travelled southward after having been carved, some of them at least, *in situ*, in the talc schists of Shetland rock faces. There is sufficient evidence to show that at sundry times and in various ways the far north has shown an originality and initiative of its own. Insularity may have had a bracing effect on communities that have had to adapt themselves to new environment or to the absence of familiar materials on which to operate. The treelessness of Caithness, Orkney, and Shetland, with their possession of land suitable for tillage by early wanderers, whose tools would not have enabled them to subdue primeval forests, may have had something to do with an early development of individuality. It certainly determined the use of stone instead of wood for structures and furnishing, as at Skara Brae.

On the other hand, even in face of the greater number of specimens of our type found in the north, the possibility of a spread northward from Wiltshire must be considered. The wealth of the Wessex overlords encouraged both far-flung trade and the services of skilled craftsmen capable of fine workmanship such as these objects display. On the whole, the data at present available do not warrant any dogmatic claim for either a northern, a central, or a southern origin of the type.¹

Holiday visits to the Continent gave me the opportunity of examining collections first in Gascony and Provence, later in Finland, Denmark, Sweden, and Norway, with negative results, while Professor Bosch Gimpera tells me that the type does not belong to the Iberian Peninsula: hence the arrival of the type either from the Mediterranean region or from the Baltic area seems excluded. On the other hand, there is a specimen in the Liège Museum from Tongres which, diverging in several particulars from the type under discussion, must be regarded as related.² Professor Childe suggests that this specimen raises the possibility of an ultimate connection with the perforated adze or hoe blades of the Omalian culture on the Meuse and the whole Danubian Neolithic of central Europe.

Purpose.—When we come to the question of the purpose these implements were intended to serve, we enter the realm of speculation. One

¹ The existing British specimens are preserved in the following collections: National Museum of Antiquities of Scotland, 15; British Museum, 4; Mortimer Museum, Hull, 1; South Wilts and Blackmore Museum, Salisbury, 2; single specimens in various provincial museums, and a few in private collections. But the inquiry is incomplete as, owing to war conditions, several collections in the west and south-west of England have remained unvisited.

A single specimen in Ireland (in the National Museum, Dublin) is of unknown locality, and Dr Mahr was of opinion that it was not from an Irish source.

² This specimen is figured in the Liège catalogue with the accompanying description: "Marteau ou casse-tête perforé, en roche cristalline verdâtre (gneiss ou micaschiste). La face non représentée est plane, et les extrémités sont arrondies et non tranchantes. Tongres."—*Liège Archaeological Museum Catalogue* (1929), p. 124, fig. 116 (1). In these details, with the exception of the flat face, it agrees with typical British specimens; but as far as one can judge from the figure it differs from them in the proportion of breadth to length, and possibly in the absence of tapering in the width, and the position of the haft-hole.

negative may be stated with a good deal of assurance. They used to be called axe-hammers. Their shape would make them ill-suited either as hammer or axe. Further, with the exception of two or three specimens, there is no indication of their use as tools. Even the few exceptions which show some marks of abrasion are probably, as already suggested, to be accounted for as a later application to a use for which they were not designed, at a stage when the tradition of their original purpose had died out. The same explanation may account also for traces on three specimens of secondary grinding. Again, from their slight size and rounded edges, any use of them as weapons seems unlikely. These arguments, especially the absence in the best preserved specimens of any marks of use, combined with their decorative quality and the pains put upon the details of shape and fine finish, have led most recent archaeologists to the conclusion that they were intended neither as tools nor as weapons, but were, instead, meant for some ritual or ceremonial use, or as insignia of authority. Mr R. A. Smith, Dr Callander, and others pointed this out some years ago for several types of such stone implements. Hafted, they could be conveniently handled as insignia, or borne aloft ceremonially in procession. If they were used in a religious ritual they need not have been actually hafted, although all have the haft-hole.

Symbolism.—The use of mace-heads as symbols of authority, both secular and spiritual, has been familiar from the days of the first Pharaohs and the earliest city kings of Sumer, and survives in the regalia of European sovereigns, University Chancellors, and South Sea chiefs.

In the grave of a Wessex chief at Bush Barrow, Normanton, was found, with a bronze axe and daggers and certain gold mountings, the stone head of a mace or sceptre, the perished shaft of which had been presumably about a foot in length.¹ This form of mace, with its short shaft and polished stone head, is a suggestive parallel for the kind of mace we are seeking as a ceremonial symbol of chieftainship, but the type of head here is unlike that which we are considering, and in particular the form is simple, with the haft-hole in the centre, and without any of the subtleties of shape that have been described.

In any case, the view that these mace-heads were symbolic is now generally accepted: since ancient and recent examples amply demonstrate that both tools and weapons may acquire symbolic significance (*e.g.* the Pharaoh's flail, the bishop's crozier, the square and compasses of freemasonry). For our type the farmer's hoe or the carpenter's adze might have provided the prototype.

¹ Stuart Piggott, "The Early Bronze Age in Wessex," *Proc. Preh. Soc.*, vol. iv, p. 62; a restoration of the mace is figured on p. 63, and also in Prof. Childe's *Prehistoric Communities of the British Isles*, p. 136; and an exact drawing of the stone head is given in Mr R. A. Smith's paper, *Archæologia*, vol. lxxv, p. 90, fig. 20. The original is in the Wiltshire Archaeological Museum at Devizes.

Age.—No reliable associations fix the age of our type. While the technical considerations adduced above point to the Bronze Age, neither distribution nor other criteria enable us to associate the mace-heads with any of the several ceramic or metal types with the aid of which that long period is generally subdivided.

Some future discovery with authenticated associations may yet remove the reproach of such an inconclusive finding. The distribution of other well-defined types of Bronze Age mace-heads¹ that have a wider distribution and clear associations may also help to throw further light on the relation of these interesting objects to the other Bronze Age elements that indicate cultural drifts or migratory movements.

I am indebted to Mr Reginald A. Smith, Dr Elgee, and Dr Phillips for reference to specimens of the type that I might otherwise have missed, and to Professor V. Gordon Childe for helpful criticism. Thanks are owing also to Mr Edwards and the late Dr Callander, and to the Curators and Keepers of the various archaeological museums I have visited in Britain and on the Continent, for their courtesy in granting me access to their collections or in answering inquiries.

¹ Such as, for instance, the double-axe forms, axe-hammers with truncated conical butt, the well-marked and persistent "pestle" type, or the dished forms with ornament like the Crichton and Chapelton specimens with incised lines, or those from the River Bann with raised flanges.

MAÇE-HEADS OF "CUSHION" TYPE IN BRITAIN.

25

DETAILED MEASUREMENTS OF "CUSHION" MAÇE-HEADS. (Stated in centimetres.)

No.	Where found.	Total Length.	Greatest Breadth.	Greatest Thickness.	Diameter of Half-hole.	Distance from narrow End to nearer Edge of Hole.	Breadth $\frac{1}{2}$ inch from narrow End.	Breadth $\frac{1}{2}$ inch from broad End.	Dorsal and Ventral Difference of Curvature.	Rounded Edges.	Marks of Use Absent.	Where kept.
1	Shetland, Barrow in . . .	10.0	3.3	2.8	1.7	3.7	3.3	3.4	x	x		Nat. Mus. Ant. Scot.
2	„ Scarpiegarth . . .	10.2	4.9	3.0	1.8 2.2	3.0	4.2	4.6	x			N.M.A.S.
3	Orkney, Skaill . . .	14.5	4.6	3.8	1.7 1.65	5.3	4.3	4.5		x	x	„
4	„ Grind . . .	13.7	4.7	3.8	2.2 2.1	5.3	4.4	4.7	x	x		„
5	„ Orphir . . .	9.7*	4.6	3.3	1.3 1.5	3.9	4.3	4.6	x	x		„
6	„ Smoogro. . .	10.8	4.5	3.2	1.7 1.8	4.1	4.0	4.1	x	x	x	„
7	Isle of Lewis, Knock . . .	13.1	4.2	3.2	1.7	4.6	3.7	4.0	x	x	x	Nicolson Institute, Stornoway.
8	Caithness . . .	10.5	4.6	..	1.4	3.5	3.9	4.3	x	x	x	British Museum.
9	Angus, Monikie . . .	12.4	4.3	3.2	1.7	3.8	3.7	4.0	x			N.M.A.S.
10	Perthshire, Pitcairngreen . . .	11.2*	4.2	3.2	1.7	4.5	3.8	4.1	x	x		„
11	Fife, Cairn in . . .	14.5	4.6	3.3	1.8	4.6	4.1	4.3	x	x	x	„
12	Midlothian, Inveresk . . .	12.6	4.4	3.7	1.7	4.2	4.0	4.2	x	x		„
13	Yorkshire, near Whitby . . .	10.8	4.4	2.8	1.9	3.6	3.8	4.1	x	x		Yorkshire Museum, York.
14	River Thames, Mortlake . . .	14.5	4.6	3.8	1.8	5.1	4.3	4.6	x		x	London Museum.
15	„ Hammersmith . . .	9.3	5.1	2.9	1.9	3.0	3.9	4.6	x			British Museum.
16	„ Twickenham . . .	11.3	4.7	3.1	1.7	4.0	4.0	4.3	x	x	x	„
	Averages . . .	11.8	4.5	3.3	1.8							

* Too low; end abraded.

III.

AN UNRECOGNIZED GROUP OF CHAMBERED CAIRNS.

BY PROF. V. G. CHILDE, D.LITT., D.SC., F.B.A., F.S.A.Scot., V.P.S.A.

Read February 5, 1944.

In the northern parts of the Scottish mainland two groups of chambered cairns, both of the "passage grave" variety, have long been recognized in archaeological literature. But they have been presented in the textbooks and maps¹ as isolated from one another by a considerable blank area where no such monuments had been recorded or at least correctly diagnosed. On the one hand what I called the "Pentland group," characterized by partitioned oval chambers in long or round cairns, had been defined eighty years ago by Dr Anderson in Caithness and traced to the northern shores of the Dornoch Firth and the Shin by Dr A. O. Curle.² On the other hand a homogeneous group of passage graves distinguished by an almost circular chamber covered by a round cairn that was defined by a peristalith of rounded boulders, as was the chamber, and was surrounded by a ring of free-standing uprights, had been described in the Nairn valley in 1884³ and was later recognized on the Spey.⁴ (For this group I rather perversely suggested the name "Beauly group" in 1940, but now admit that the classic site of Clava in Strath Nairn provides a better designation.) Between the two areas intervened a blank belt from the Dornoch Firth to the Cromarty Firth where no chambered cairns at all had been recognized, while a few ruined monuments in the southern half of the Black Isle had been assigned vaguely to the Beauly (Clava) group.

An emergency survey of most of this area undertaken by the Royal Commission on Ancient Monuments (Scotland) and a re-examination of its monuments has completely filled the gap between the two groups. As this will entail a revision of any generalizations based on the distribution of such monuments, the Commissioners have kindly agreed to a summary publication of the evidence here pending the issue of the relevant inventories in a comparatively distant future.

In the first place the survey has revealed a real extension of the "Pentland" group south of the Dornoch Firth to the Conon and the Black Isle and indeed across the Beauly Firth itself into the Clava province of the Nairn-Ness watershed. The list attached will exhibit a regular chain of fourteen long or chambered cairns beginning just west of Edderton and

¹ *E.g.* Fox, *Personality of Britain* (1938), fig. 1.

² R.C., *Inventory of Ancient Monuments in Sutherland*.

³ *Proc. Soc. Ant. Scot.*, vol. xviii, pp. 328-362.

⁴ *Ibid.*, vol. xl, pp. 248-50.

extending along the foothills of Easter Ross overlooking the Cromarty Firth almost to the mouth of the Conon, together with eight comparable monu-

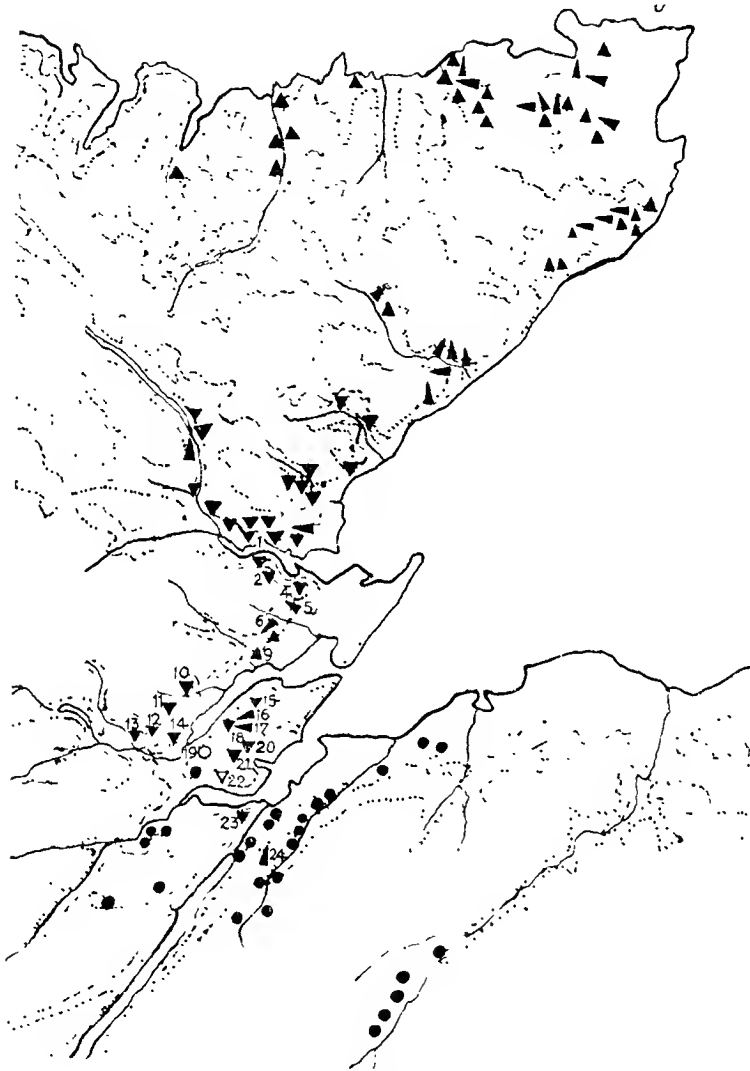


Fig. 1. Chambered cairns round the Moray Firth.
Triangles, Pentland type; circles, Clava type; contours at 100 and 200 metres.

ments east of that firth on the Black Isle. Of these twenty-two monuments only three have been described in our *Proceedings* or other scientific journal. While a few of these burial places, notably that on Edderton Hill (No. 3),

seem to be intact, most have been horribly mutilated; in some cases indeed the covering cairn has been totally removed so that only large orthostats survive. Of the measurable cairns six (Nos. 5, 6, 7, 16, 17, and 24) are certainly long; one at Kinrive (No. 6), measuring 207 feet in length, can compare in size with the classic examples from Caithness, the remainder range from 124 feet at Essich to 86 feet at Wester Brae. All are higher and broader at one end, generally the east, as in Caithness. No horns are superficially visible, but a low heather-clad bank projects obliquely from the wider end of the long cairn at Kinrive in a suspicious manner.

All the exposed chambers in which any plan is recognizable can be classed as passage graves in so far as the construction comprises one section lower and narrower than the other. But in no case is the chamber circular as in the Clava type. On the contrary, in the majority (Nos. 10 and 13 in Easter Ross, and 15, 18, and 21 in Black Isle, and 24 on Essich Moor) the side slabs of the chamber are almost parallel so that they define a sort of long cist. At Balmagie (No. 21) this cist is only 9 feet 4 inches long by 7 feet wide, and separated from the passage (perhaps 14 feet in length) by a pair of low portal stones projecting transversely from the side walls. But at Mid Brae, judging from the one side that is visible, the chamber must have been some 20 feet in length and divided into two compartments by low partition slabs projecting from the side walls. Whether they serve to subdivide the chamber, as apparently in Nos. 15 and 18, or to separate chamber and passage, as probably in Nos. 10, 13, and 21, these transverse slabs are conspicuously lower than the lateral slabs and headstone of the chamber.

These cist-like chambers seem at first sight a far cry from the classical "Pentland" plan as established in Caithness. Yet in the admittedly "Pentland" group just north of the Dornoch Firth the same sort of plan is seen at Torboll and Achany.¹ Moreover, in the last-named cairn and at The Ord² the transverse (partition) slabs are lower than the lateral slabs in contrast to the tall slabs used in Caithness and Strath Naver. Conversely even in the long Ross-shire cists the lateral slabs supported courses of drystone walling as a fragment of corbelling, luckily preserved at Woodhead (No. 18), demonstrates.

An undivided polygonal chamber can legitimately be deduced from the positions of the surviving orthostats at Ardvane (No. 1) and Ballachnecore (No. 12). In both cases the portal stones are the lowest in the chamber. The same sort of plan is illustrated at Achaidh, north of the Dornoch Firth,³ and more frequently in the west. Finally in the upper cairn at Lechanich (No. 2) there seems to be a bipartite oval chamber, 20 feet long and 7 feet wide, defined by built walls of flat slabs oversailing inwards combined with

¹ R.C., *Sutherland*, Nos. 447, 134.

² *Ibid.*, No. 444.

³ *Proc. Soc. Ant. Scot.*, vol. xlv, p. 104.

slabs on edge quite in the manner normal farther north. Moreover, in all cases the builders have used split angular slabs and not the complete rounded boulders that figure so prominently in the construction of Clava cairns and chambers.

Since the newly described monuments in Easter Ross and the Black Isle belong so clearly to the "Pentland" group, both geographically and typologically, there can be no *a priori* objection to treating four monuments south of the Beaully Firth as a further extension of the same group. For, though situated well within the "Beaully" province, they lack all the distinctive features of the Clava type and do exhibit some features in plan and construction appropriate to the Pentland series. The ruin on Leachkin Hill, west of Inverness, is indeed too dilapidated for reconstruction without excavation at least, but is certainly built of angular blocks rather than rounded boulders. The monuments on Essich Moor, south of Inverness, though also much disturbed, justify more positive conclusions. The three cairns in line now appear as a single ridge of boulders running north and south for 380 feet, but divided by two lower, narrower, and more scrub-clad tracts into three segments. The northernmost segment at least is 120 feet long by 50 feet wide and surrounds an opened cist-like chamber of split slabs, while the southernmost, though more nearly round (124 feet N.-S. by 94 feet E.-W.), covered a chamber partly walled with neatly coursed flat slabs (Pl. II, 1).

At Essich the northern "Pentland" type intrudes into the "Beaully" province, since even in 1884 Fraser¹ had identified five "stone circles" of the Clava type between the Nairn and the Ness. On the other hand the Clava type overflows northward into the newly defined extension of the Pentland province. For it is now possible to list six typical Clava cairns west of the Ness—the first of which at least, Carn Urnan in the Black Isle, lies well within the area where we have traced a preponderance of Pentland cairns. (The cairn near Alcaig Manse may also belong to this group, but dense brambles effectively hid all diagnostic details when I visited it.) All these six western cairns exhibit the distinctive Clava features of close-set rounded boulders, defining cairn and generally chamber too, and of a ring of free-standing uprights outside the cairn, while in addition cup-marked stones can be seen in the peristalith or in the outer circle at Nos. III, IV, and V. The chambers were certainly entered through a passage in Nos. I and VI (as in Clava 1 and 3), but at II and III probably and at IV certainly were closed as in Clava 2. The great cairn at Corrimony is, we hope, intact so that the nature of the chamber is undefined.

The new monuments listed below make the derivation of the family of Clava cairns in the Beaully, Ness, Nairn, and Spey valleys from the northern Pentland series geographically possible. On the other hand the contrast

¹ *Proc. Soc. Ant. Scot.*, vol. xviii, pp. 354-6.

in plan and structure between the two types, now emphasized by Carn Urnam and the Essich cairns, is hardly compatible with such a theory. The new discoveries do not in fact illustrate the Pentland type turning into a Clava type.

INVENTORY OF CAIRNS AND CHAMBERS: EASTER ROSS.

- (1) Ardvanie (Edderton Par., Ross., xxvii), in a small wood on a rolling plateau just below the 100-foot contour between the main road and the railway: denuded cairn about 70 feet in diameter: near centre polygonal chamber opening to E. and 11 feet long by 6 feet wide, defined by a headstone, four side slabs and a low portal stone.
- (2) Lower Lechanich (Edderton Par., Ross., xxvii), on a small knoll on a spur projecting S.E. from Suie Hill towards the farm rather below the 300-foot contour: denuded round cairn some 50 feet in diameter. Within is exposed the rim of a chamber orientated nearly E.-W. defined by a tall headstone, the upper edge of a slab in the south side joined to the headstone by a curved segment of drystone wall corbelled inwards at the top, and a smaller fraction of a side slab in the north wall: 10 feet E. of the headstone a low slab projects at least a foot from the line of the south wall. Beyond it that line is continued by a strip of built wall 6 feet long terminating on the east in the southernmost of a pair of jamb stones, 2 feet 3 inches apart along the edge and still carrying a lintel. Five feet farther E. another pair of jambs, 1 foot 9 inches apart, is exposed 10 or 12 feet from the apparent edge of the cairn.
- (3) Lower Lechanich (*ibid.*). About 100 yards S.E. of No. 2 and about 50 feet lower down is another round cairn, much denuded but probably 60 feet in diameter, curiously situated on the slope from a knoll towards the arable land of Lechanich. Three stones forming one side of a passage or cist are exposed on the eastern margin of the cairn: 6 or 7 feet outside the periphery of the cairn are four angular uprights and three similar slabs lying prostrate.
- (4) Red Burn (Edderton Par., Ross., xli). On a terrace of arable land about 450 feet above O.D. on the north flank of Edderton Hill, a round cairn 70 to 80 feet in diameter and 11 to 13 feet high. On the east side 25 feet from the edge of the cairn and some 5 feet above it is exposed a lintel measuring 5 feet 3 inches by 1 foot 2 inches by 1 foot 9 inches.
- (5) Wester Lamington (Logie Easter Par., Ross., xli), a cairn 96 feet long, N.W.-S.E., 62 feet wide at S.E. end and 18 at the other, situated on the highest point of a broad moor sloping gently to the S.E. from the 450-foot contour.
- (6) Kinrive (Kilmuir Easter Par., Ross., liv). On the S.E. slope of Kinrive

above the crofts and about 500 feet above O.D. a long cairn of naked broken stones and boulders measuring 207 feet N.E.—S.W., 61 feet wide at the N.E. end and 42 at the S.W. From the N.E. end a turf and stone dyke runs N.W. for 72 feet (Pl. III, 1).

- (7) Kinrive (*ibid.*). About 50 yards N.E. of No. 6 and on the same level a denuded long cairn orientated as No. 6, but only 45 feet long by 25 feet wide. *Trans. Invern. Sci. Soc.*, v. (1899), p. 363.
- (8) Kinrive (*ibid.*). The cairn marked about $\frac{1}{4}$ m. S. of No. 6 and lower down is stated to have been totally removed within the last thirty years, exposing a chamber some uprights of which survive. We failed to find these in the dense wood. The cairn is said to have been 66 feet in diameter.
- (9) Milleraig (Rosskeen Par., Ross., lxy). On the arable land sloping down from the farm towards Alness, about the 200-foot contour, a cairn was removed about 1854. The surviving remains suggest a round cairn 110 feet in diameter with a megalithic chamber in the centre, of which one slab from the N. side, $9\frac{1}{2}$ feet long and over 6 feet high, and a low transverse slab at its E. end survive.

Between Nos. 9 and 10 outside the areas included in the Commission's emergency schedule the 6-inch O.S. maps mark several cairns that may comprise long or chambered examples.

- (10) Strath Skiach, Balnacrae (Dingwall Par., Ross., lxxvi). On the southern slope from Cnoc nan Each to the River Skiach just above the 800-foot contour stand the ruins of a megalithic chamber orientated N.E.—S.W.—let us say for convenience E.—W., however—within a cairn the outlines of which have been completely obscured by subsequent work that has also deformed the chamber. The latter is represented by two irregular lines of enormous uprights, 25 feet in length, the northern of which consists of four slabs now leaning at various angles and the southern of three, of which two are prostrate (one being 9 feet long and $5\frac{1}{2}$ feet wide), and a pair of lower jamb stones with an axial aperture of $1\frac{1}{2}$ feet between them. Beyond the jambs are traces of a lower and narrower passage extending eastward for a further 19 feet. No headstone survives between the two rows at the W. end of the "chamber," but a slab standing over 6 feet high and 4 feet 10 inches wide projects *northward* from the N. row of uprights (fig. 2).
- (11) Heights of Brae (Fodderty Par., Ross., lxxvi). On the broad ridge of moorland between Strath Skiach and Strathpeffer and in sight of No. 10 are remains of a terribly denuded cairn and eleven uprights, as well as some prostrate slabs. The construction has suffered too much disturbance to be interpreted with confidence.
- (12) Ballachnecore (Urray Par., Ross., lxxxviii). Near the west end of a

spur of Cnoc Mor four orthostats seem to define a polygonal chamber 14 feet long and perhaps 9 feet wide, while E. of a pair of low jamb stones three low side slabs and a pair of portals should mark a passage

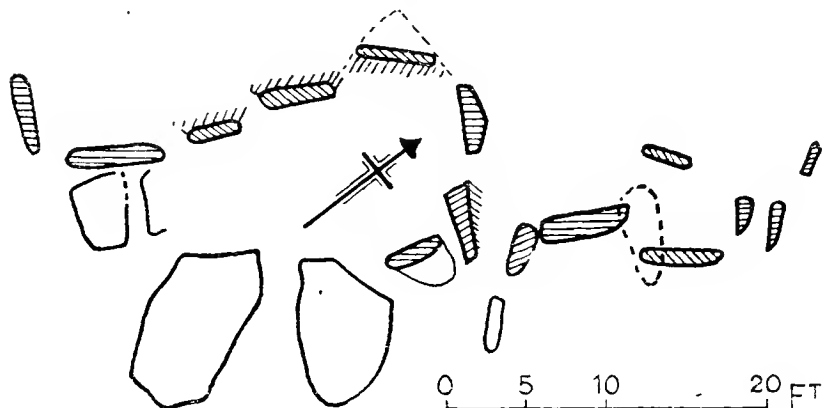


Fig. 2. Ruined chamber near Balnacrae, Strath Skiach.

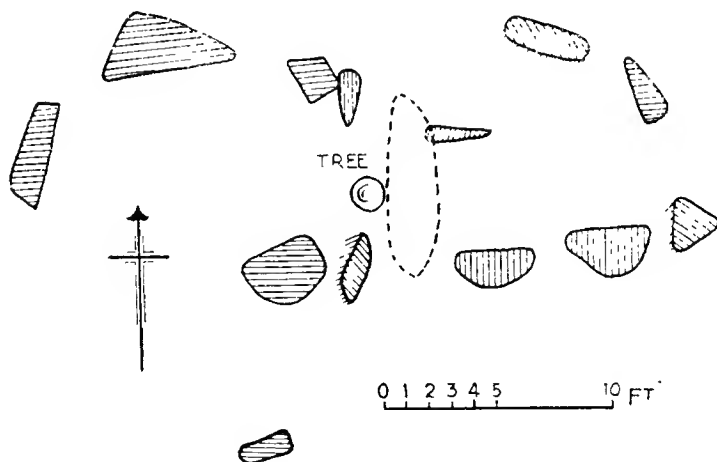


Fig. 3. Ballachnecore, No. 12.

$3\frac{1}{2}$ to $4\frac{1}{2}$ feet wide and $12\frac{1}{2}$ feet long, of which one lintel is more or less in position. The covering cairn has been almost entirely cleared away. The function of two stones outside the construction cannot be determined.

- (13) Contin Mains (Urray Par., Ross., lxxxvii). On a knoll about 140 feet above O.D. and sloping down on the S. to Black Water, the preparation of a private burial-ground has destroyed a cairn, possibly



1. Essieh. View of cairns.



2. Essieh. Chamber in south cairn.

V. G. CHILDE.

UNRECOGNIZED CHAMBERED CAIRNS.

[To face p. 32.

surrounded by a stone circle, and exposed some remains of a bipartite cist or chamber and passage orientated E.-W. and opening to E. These consist of two side slabs, 8 feet apart and measuring respectively 3 feet 4 inches by 7 feet 8 inches by 1 foot 7 inches and 2 feet 3 inches by 6 feet 2 inches by 1 foot 6 inches; a pair of partition slabs less than 3 feet high and $2\frac{1}{2}$ feet apart: the north side slab of a passage or antechamber 2 feet 10 inches by 5 feet 8 inches by 1 foot 3 inches, with three very large cup-marks on its upper edge; and two portal

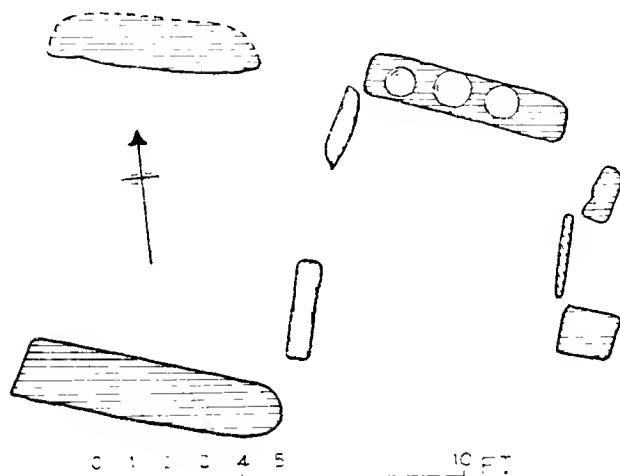


Fig. 4. Contin Mains, No. 13.

stones 3 and $3\frac{1}{2}$ feet high respectively and $2\frac{1}{3}$ feet apart, with a very low sill stone set between them. North of the chamber is a prostrate slab over 7 feet long that may have stood on a circle in or outside the peristalith, while 30 feet W. of the chamber are exposed two thin slabs possibly belonging to a short cist (fig. 4 and Pl. IV, 1).

- (14) Ussie (Urray Par., Ross., lxxxviii). On the crest, but not the summit, of the ridge between the Contin and Ussie Burn stand a confused cluster of megalithic uprights within a disturbed and much denuded cairn.

BLACK ISLE.

- (15) Mid Brae (Resolis Par., Ross., lxxvii). A spur of Mt. Eagle, running N. towards Newhall Pt., forms a long and very broad ridge that slopes very gently downwards along its axis and almost more gently towards the Allt Dubhach on the east, but quite steeply towards the Cromarty Firth on the (N.)W. Overlooking the Firth on the brow of the hill just below the 450-foot contour and the crest of the ridge

among the ruins of deserted crofts are the remains of a grievously denuded cairn and the headstone and four lateral slabs of a cist, extending 13 feet in a line 21 S. of W. from the headstone. Two transverse slabs on edge, 14 and 20 feet respectively from the headstone and lower than the adjacent lateral slabs, project respectively $1\frac{1}{2}$ and $2\frac{3}{4}$ feet into the supposed chamber or cist.

- (16) Wester Brae (Resolis Par., Ross., lxxvii). Nearly $\frac{3}{4}$ m. S.S.W. of No. 15, but on the opposite side of the ridge and so hidden from it, stands a somewhat mutilated cairn 85 feet long E.N.E.-W.S.W., 48 feet wide and 5 feet high near the E. end, and 38 feet wide near the W. end, about 550 feet above O.D.
- (17) Woodhead (*ibid.*). Some 1100 yards S.S.W. of No. 16 at the bottom of a very shallow depression in the plateau, but about 600 feet above O.D., is another long cairn orientated E.-W. It measures 110 feet in length, 45 feet in width near the E. end, and 39 feet near the W. end. Both Nos. 16 and 17 stand in fields of small cairns, the latter extending almost to No. 18.
- (18) Woodhead (*ibid.*). On the brow of the slope down towards the Firth, close to the 600-foot contour and about 400 yards N.W. of No. 17, is a large but hopelessly disturbed cairn overgrown with dense bracken amongst which numerous large slabs can be seen. Amongst these two pairs of nearly parallel uprights seem to form the walls of a passage or cist section, $12\frac{1}{2}$ feet long N.E.-S.W., 34 feet wide at its S.W. end and $5\frac{1}{2}$ at its N.E. Farther N.E. a pair of transverse slabs reduce the passage way to 4 feet. The northernmost upright in the S.E. wall still supports two corbels which, though slipped, still help to support an enormous lintel that attains a length of 4 feet along the axis of the chamber, a maximum width of 8 feet, and an extreme thickness of $3\frac{1}{2}$ feet (fig. 5 and Pl. III, 2).
- (19) Aleaig Manse (Urquhart and Logie Wester, Ross., lxxxviii). On the crest of a low ridge some 220 feet above O.D., overlooking Cromarty Firth, the O.S. map marks a "Stone Circle." Inspection shows that this was a round cairn covering some sort of a chamber, but the brambles are too dense to allow of its character being determined or even to exclude attribution to the Clava type.
- (20) Belmaduthy (Knockbain Par., Ross., lxxxix). In a cornfield on the crest of a very low ridge about 130 feet above O.D. stands a cluster of ten upright or fallen slabs amidst the deformed remains of a cairn. The plan of neither cairn nor chamber can be determined from the exposed remains (*Proc. Soc. Ant. Scot.*, xvi, 490).
- (21) Balnaguie (Knockbain Par., Ross., lxxxix). Near the tip of a projecting tongue of high ground approximately defined by the 250-foot contour are the denuded remains of a large and probably circular cairn

containing an exposed chamber, orientated E.-W. and divided into two sections by transverse slabs. The innermost section, $9\frac{1}{4}$ feet long by 7 feet wide, is defined by a headstone on the W. over 7 feet high and $5\frac{3}{4}$ feet wide (now leaning westward); two slabs in the N. wall and one in the S.; and two projecting partition slabs with a

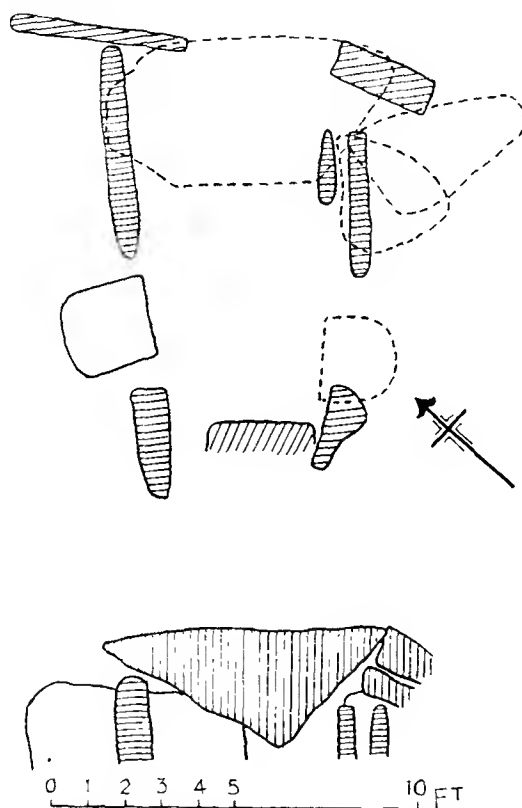


Fig. 5. Woodhead, No. 18, plan and section through covered section (capstone dotted).

gap of $2\frac{1}{2}$ feet between them. the N. transverse slab is 2 feet lower than the adjacent lateral slab at its N. end and 6 inches lower still at its inner extremity. The outer section or entrance passage is defined by a pair of lateral slabs $6\frac{1}{4}$ to $6\frac{3}{4}$ feet apart and 5 to $5\frac{1}{2}$ feet long. Beyond come two portal stones now 6 feet apart (but the southern one is probably displaced), and 21 feet from the headstone (*Proc. Soc. Ant. Scot.*, xvi, 488-9).

- (22) The Temple, near Allangrange Station (Killearnan Par., Ross., lxxxix). Completely wrecked remnants of a megalithic chamber in a denuded

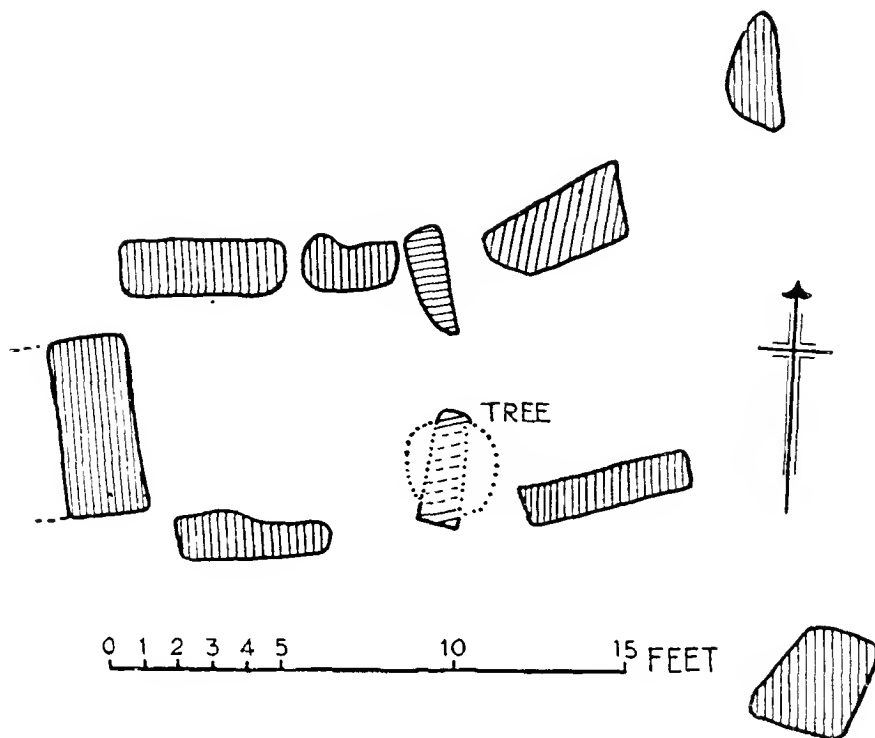


Fig. 6. Balnagie, No. 21.

round cairn, now planted, on the crest of a ridge about 275 feet above O.D. (*Proc. Soc. Ant. Scot.*, xvi. 487).

INVERNESS-SHIRE.

- (23) Leachkin (Inverness and Bona Par., Inverness, xi). In a wood on the spine of the ridge between the Ness valley and the Beaully Firth stand the mutilated remains of a megalithic chamber consisting of a pillar stone $6\frac{1}{3}$ feet high and a number of upright and fallen angular slabs. While no reliable reconstruction of the original plan is practicable, the remains cannot be fitted into a "stone circle" of the Clava type.
- (24) Essich Moor (Inverness and Bona Par., Inverness, xx). At the northern end of the easternmost of several parallel ridges that run N.-S. across the marshy plateau that separates the Allt Mor from the Ness valley, about 700 feet above O.D., are three cairns of naked broken stone in line that now look like a single huge cairn 380 feet long (Pl. II, 1). The northernmost, 120 feet N.-S. by 57 feet across the

chamber by 6 feet high, contains near its N. end part of a cist 6 feet N.-S. by $4\frac{3}{4}$ feet wide framed by a pair of slabs on edge, preceded by a passage $9\frac{2}{3}$ feet long, of which only two slabs of the W. side wall, not quite in line with the corresponding wall of the cist, are exposed. The wall terminates in a pillar, presumably a portal stone.

- (25) Essich Moor (*ibid.*). Separated from No. 24 only by a tract 30 feet across N.-S. that is rather lower, narrower, and less stony, is a second mass of broken stones some 76 feet N.-S. by 47 feet E.-W. No central structure is exposed, but at the S.E. corner are the headstone and one side stone of a megalithic cist that must have been at least $4\frac{3}{4}$ feet wide and $3\frac{1}{4}$ feet deep.

- (26) Essich Moor (*ibid.*). Due S. of the last-mentioned cairn, and separated from it by a similar lower and less stony belt, is a third accumulation of naked stones 124 feet N.-S. by 94 feet E.-W. by perhaps 8 feet high (but the natural surface of the ridge is also higher at this end). On the main axis of the cairn but rather S. of the centre are exposed a headstone (5 feet wide by $1\frac{1}{2}$ thick by over $5\frac{1}{2}$ high) and the east side of a cist or chamber. The side wall is represented by two slabs on edge together with a neatly built wall of oversailing slabs behind and above the northernmost upright (Pl. II, 2): the total length exposed is about 6 feet, but there are superficial indications of a collapsed passage running on southward.

The general character of the foregoing monument or monuments was correctly recognized by the late James D. McCulloch in his small pamphlet *Essich and its Traditions* (Munro, Aberdeen); cf. also *Trans. Invern. Sci. Soc.*, v. (1897), p. 178.

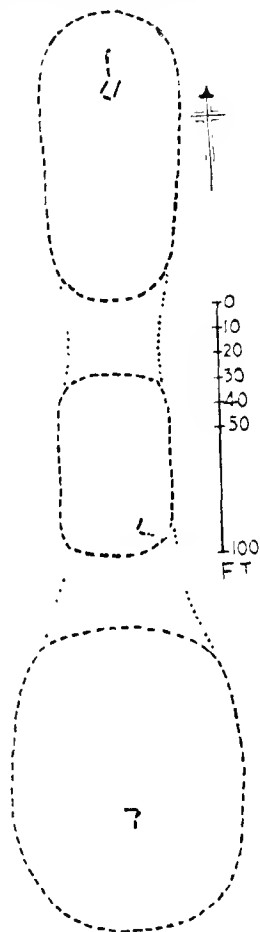


Fig. 7. Cairns on Essich Moor, Nos. 24-6.

CLAVA CAIRNS WEST OF THE NESS.

BLACK ISLE.

- I. Carn Uman (Inenan) (Killearnan Par., Ross., xcix). Chamber 14 feet in diameter entered through passage to the south; peristalith circle

38 feet in diameter: free standing circle of seven uprights 66 feet in diameter (*Proc. Soc. Ant. Scot.*, xvi. 478-9).

BEAULY VALLEY.

- II. Belladrum (Kiltarlity Par., Inverness, x). In a wood on a gravel terrace about 100 feet above O.D., incomplete remains of a typical boulder peristalith 43 feet E.-W. by perhaps 40 feet N.-S. enclosing denuded cairn. No chamber nor passage is exposed and no outer circle remains.
- III. Bruiach (Auldfearn) (Kiltarlity Par., Inverness, x). In a wood between two burns about 150 feet above O.D., free-standing circle of 14 uprights some 70 feet across, and an apparently continuous peristalith of upright boulders 45 feet in diameter; on the tops of two of the boulders are groups of 5 and 6 cup-marks respectively. The enclosed cairn and chamber have been totally removed to make a pond (*Proc. Soc. Ant. Scot.*, xvi. 326).
- IV. Culburnie (*ibid.*). On a wooded plateau about 200 feet above O.D., in front, and partly in the garden, of croft No. 19 stand a ring of 8 free-standing uprights (graded in height from 5 feet on S.S.W. to 3 feet on N.E.) of diameters 70 by 65 feet; a continuous peristalith of boulders on edge supporting two or three courses of boulder walling built with a marked batter, having diameters of 44 by 42 feet, and enclosing a cairn of small boulders; within this a closed chamber, 17 by 16 feet in diameter, framed with boulders on end supporting courses of slabs and flat boulders. There are cup-marks on the tallest upright in the outer ring and on three of the peristalith boulders (*Proc. Soc. Ant. Scot.*, xvi. 316).

GLEN URQUHART.

- V. Corrimony (Glenurquhart and Glenmoriston Par., Inverness, xxviii). On dead level meadow land an irregular circle of eleven orthostats of diameters 82 feet N.-S. by 76 feet E.-W. surrounds a cairn spreading over at least 58 by 55 feet and over 8 to 10 feet high from within the skirts of which protrude six large boulders, doubtless members of a typical Clava peristalith with a diameter of some 51 feet. On one stone in the outer ring and on another, now lying on the surface of the cairn but probably taken from the ring, are cup-marks (*Proc. Soc. Ant. Scot.*, x. 643; xvi. 312).
- VI. Cairn Daley, Balmagrantach (Glenurquhart and Glenmoriston Par., Inverness, xxix). In a cultivated field on the brow of a hill, some 750 feet above O.D., are the remains of this cairn excavated by the Inverness Field Club and Scientific Society.

IV.

ANCIENT DENOMINATIONS OF AGRICULTURAL LAND IN
SCOTLAND: A SUMMARY OF RECORDED OPINIONS,
WITH SOME NOTES, OBSERVATIONS, AND REFERENCES.
By A. McKERRAL, C.I.E., M.A., B.Sc., F.S.A.Scot.

Read February 26, 1914.

Writing in the year 1834 Donald Gregory, the historian of the Western Highlands, makes the following comment on a charter of the Abbey lands of Iona to Maclean of Dowart of the date 1588: "Nothing is more perplexing in Highland charters and rentals than the various denominations of land which we meet with. In the present charter, for instance, we have *pennylands* and their fractional parts, *quarter lands*, *cow lands* or *vaccalles* of land, and *mark lands*. The pennylands in the Isles are believed to have received that denomination during the occupation of the Isles by the Scandinavians, and they do not appear to have any reference whatever to the proper Scottish denominations. Thus the lands in Ross of Mull, conveyed by this charter, and denominated pennylands, amount in the whole only to *fifty-six penny and three-farthing lands* whilst, by the usual Scottish denominations, they were rated to the Crown as the *twenty pound* or *thirty merk lands* of Ross" (1).

This observation states clearly the antiquarian problem presented then, and to some extent still, by this subject. Why indeed should a piece of land be referred to at one and the same time as a fifty-six penny land and as a twenty-pound land? The subject is not unimportant, for on the solution of the problem must depend to a great extent our understanding of past agrarian conditions in Scotland and, for that matter, of a good deal of political history as well. It is therefore not surprising that, since Gregory wrote, some of our most distinguished Scottish historians and antiquaries should have given it their attention. Dr Cosmo Innes devotes some attention to it in his *Legal Antiquities*, published in 1872, and was able to throw some light on at least one of its aspects -- the relation between what Gregory calls the Scottish denomination, the Merkland, and the Saxon denomination, the Ploughgate. In the same year there appeared the *Historical Essays* of E. W. Robertson, containing a very learned dissertation on ancient weights and measures. Robertson, however, appears to have been mostly interested in Teutonic denominations and his book, while containing much very valuable material, leaves some of Gregory's problems still unsolved. A more satisfactory discussion, from the point of view of the Scottish student, is that given in the third volume of

W. F. Skene's *Celtic Scotland*, published in 1880, and in this matter, as in all that pertains to Celtic Scotland, Skene is a valuable and trustworthy guide. Perhaps the fullest and most determined attempt to clear up the whole subject was that by Capt. F. W. L. Thomas, R.N., in articles contributed by him to the *Proceedings of the Society of Antiquaries of Scotland* a few years after Skene's book appeared. The title of Thomas's paper was "What is a Pennyland?" and in it he throws a valuable light on the relations between the various systems of nomenclature employed in connection with the land in Scotland (2).

The perplexities to which Gregory referred are to be ascribed mainly to failure to consider the subject in historical perspective and to a tendency to regard the various denominations as belonging to one scale of values, whereas they were quite separate. This tendency is exhibited by some of the above writers, perhaps unintentionally. Thus in *Legal Antiquities* we find the words "the western half of Scotland, the wildest shores of our Highlands, and the wildest islands, were measured in marklands, shillinglands, pennylands, farthinglands, long before money—coined silver—was generally used or known as an element of rent, on the other side," and again the author speaks of "the memory of an ancient measure and valuation in money values—poundlands, shillinglands, *down to* penny and farthing lands." Whether the author meant to convey it or not the reader, and especially the amateur reader, gets here the impression that the poundland, markland, and pennyland were descending values in a single congruent scale of land values, whereas, as we hope to show, the pennyland, if by that term is meant the Norse pennyland, had a quite separate historical origin to the poundland and markland with which it was to some extent, and in some aspects at least, incommensurable and incongruent.

In the present paper it is proposed to give a short summary of the subject, embodying in it the conclusions of the authorities just quoted and adding some observations on points of detail which still continue to present difficulties to the student of ancient charters and rentals. These latter, of course, provide practically all the known data for a study of the subject. They can be studied in the original MSS, if necessary, but the path of the student is made easier by the fact that all the important charters have been printed either in the Seal Registers or in the Chartularies of religious houses and that an admirable summary of many of these is given in the *Origines Parochiales* published by the Bannatyne Club. The subject naturally lends itself to treatment along the lines of historical sequence, for each of the races who have in turn colonised Scotland have made their own contribution to our land denominations. These were in turn the Celts, the Saxons, the Norsemen, and finally the Scots themselves, regarded as a blend of the first three. We therefore propose to consider in turn the Celtic, Saxon, Norse, and Fendal or Scottish land denominations.

CELTIC DENOMINATIONS.

The ancient Celts of Ireland and Scotland, able and gifted as they were in many matters, had two notable defects in their economy. They do not appear to have had anything that could be described as a *measure* of land in the sense of an accurately defined superficies based on a fixed standard of length, and in the second place they never attained to a currency or coined money. Of the first E. W. Robertson remarks: "There is not a trace of any standard of agricultural measurement in Ireland before the English invasion. The firstlings of the flock, and herd, the baptismal *pinginn* and the anointing *screapal* were the prerogatives claimed by the Cowarbs: cattle, horses, and screapals were collected by the Maers of the greater dignitaries on their circuits: *scailh* or a measure in every brewing of ale or mead was exacted from the tenants of the vill: and Roderick O'Connor acknowledged the superiority of the English king by payment of a tribute in cattle or *cornage*" (3). The same may be taken to have held in ancient Celtic Scotland, and the lack of any measure such as the acre or hide of Saxon England was probably due to the fact that both in Ireland and Scotland grazing was regarded as of far more importance than arable farming, and the measures adopted, if they can be called such, were those derived from the numbers of live stock that could be pastured on a particular piece of ground. On the second of the two defects in Celtic economy—the absence of a currency—Prof. R. A. S. Macalister remarks as follows: "So far as we know, the Scandinavian kings of Ireland were the first in the country to strike a coinage. The slowness of the native Irish to adopt this convenience is very singular. Notwithstanding the high organisation of society, which is abundantly testified to in the pages of the legal tracts, and although the occasional discovery of Saxon coins of the tenth century shows that the nature of money was not unknown, all estimates of value are based on a standard of cattle or slaves, and all pecuniary transactions take the form of barter based on such valuation. The Scandinavian kings issued silver pennies, resembling in character those of the contemporary Anglo-Saxon kings, and evidently based upon their model. After the Scandinavians had shown the way, the practice of coining money seems to have been followed by some of the native authorities; but the subject is still obscure and calls for further research. According to the *Annals of Clonmacnois*, money was coined at that important ecclesiastical establishment in the year 1170" (4).

In Scotland no coins were minted before the reign of King David I (1124–1153) when sterling pennies came into existence. If coins circulated in Scotland before that date they must have been the pennies of the Saxon kings of England and their Norman successors (5).

The social and fiscal unit in both Celtic Ireland and Celtic Scotland, as

it still is over large parts of Asia to-day, was the village or township. The solitary farm, tenanted by a single tenant, was unknown, and this fact must be clearly recognised if we are to understand the ancient rural life of Scotland. The commonest name, and the one which has entered most largely into our Scottish place-names, for these villages was *baile*, a word cognate to the Latin *vallum* and *ballium* and probably meaning originally the same thing—a fortified place. To translate this word as “a farm,” as is sometimes done, is to confuse the whole matter. It gave rise to the prefix *bally* or *bal* in Scotland. This is one of our commonest place-name prefixes and is found, either in the one form or the other, all over Scotland with the exception of some of the south-eastern counties, where Saxon influence has long ago ousted it. North of the Forth and Tay, however, we meet another prefix which has exactly the same meaning. This is *pit*, or the *pett* of the *Book of Deer*. Some authorities regard it as the northern form of the Gaelic *buth*, meaning nowadays a shop but signifying in ancient times a dwelling of some kind. A form of *pit* with the Gaelic genitive *an* is *Pit-an*, becoming *Fìn* in names like Findhorn, Finlaggan. There can be no doubt that *bally* and *pit* had the same meaning and their synonymous use is indicated by the Forfarshire names: Pitmachie, Balmachie; Pit-kelly, Bal-kelly; Pitargus, Balargus; Pitruchie, Balruchie; Pitkeery, Balkeerie; Pitglasso, Balglasso. The corresponding Saxon equivalents were *ham* and *tun*, and in the Latin of the charters they become *villā* or *villula* (6).

Thus in a charter by Macbeth of date A.D. 1040-1057 we find *termini de Kyrknes et villulæ quæ dicitur Pethmokane*, and in another by Malcolm III to the Keledei of Lochleven of date 1070-1093 we find included in the grant the “*villam de Ballecristin*” (7).

Another prefix of frequent occurrence is *tilly* or *tully* in such names as Tillicoultry, Tullibardine. This is from the Gaelic *teaghlach*, meaning a family or household which in early days may have meant a small community. It is probably this word which Bede translates as *terra familie* when he tells us that Iona comprised five *terre familie*. From what we know of Iona's extent in merklands at a later date, this measure of Bede's was the equivalent of the davach, townland, bally, pit, or teaghlach.

Attached to each townland, bally, pit, or villa was a piece of land which supported the inhabitants of the township. As we have already pointed out, they were in early times mainly herdsmen, but there would be a small area of land for the cultivation of cereals near to the village. The townland would be unmeasured, but would in all probability become standardised to support a certain number of animals, each dweller in the township being permitted to graze a certain number and no more. The arable land would be cultivated in *run-rig* or communally, as was the custom in the western isles of Scotland up to quite recent times. The township or village had an

officer called a *maor*, who is not to be confused with the Mairs or Mairs of Fee of later feudal times. A certain number of these villages were grouped together to form the larger administrative unit known as the *tuath*, at the head of which was an officer called the *toiseach*, and a certain number of *tuaths* were grouped together to form a *mor-tuath*, at the head of which was the great officer of state known as the *mormair*. In Ireland the corresponding office to that of *mormair* in Scotland was that of the *ri-mortuath*, the holders being the "kings" of Irish history. Our present inquiry, however, is not into these administrative matters, but is concerned with the agricultural divisions of the townland or bally (8).

It is possible that in an early and primitive state of society the land of the township may have been the common property of its inhabitants, but we have the evidence of place-names and other evidence besides to show that at an early period it passed into private ownership and became divided up among the families of the chiefs. To these the common people paid rents, probably mainly in cattle, or *cornage*, or *nout-geld* for the land they used, while the local chief would pay a tribute, mainly in cattle, to his overlord. This system developed into the well-known tacksman system of the Highlands in later centuries.

As to the manner in which the townland or bally was divided up we find, perpetuated in Irish place-names, the half or *leth-baile* in a name like Lavally, and the third or *trian* in names like Trianlaur, Trianamullin (9). It may be the same word that is found in the Perthshire name Trean. In northern Scotland the townland was known as the *davach*, pronounced *doch*, and we find the half-townland perpetuated in some names like Leathdoch Bheannchdair and Leathdoch nan Coig, occurring in Morayshire and derived from *leth* the half and *davach* the townland (10). In the West Highlands the *ceathramh* or quarter and its submultiples were well-known land denominations, occurring in the charters as *quarters*, *eighths*, etc. The following are examples:—

- (1) In the twelfth century Malcolm Earl of Lennox granted to Arthur Galbraith that *quarter* of the lands of Buchmonyn which is nearest to the land of Blarnefode and that *quarter* of the land of Gilgirane which is nearest to Cartonewene and Tyrwaldowny for as much service in the king's foreign service as ought to be rendered for a *quarter* of land in Lennox in the Scotch service (11).
- (2) In a grant before the year 1225 by Earl Alwin to Maldowen, Dean of Lennox, there was included "the three lower *quarters* of the lands of Luss called Achadh-tulech, etc., and of the other *quarter* which lies on the west of Luss" (12).
- (3) On 20th May 1319 King Robert I granted to Duncan, son of Murthylach, "two *quarters* (*quadrates*) of Ratheon and two of

Altremnonyth in Levenax to the value of seven marks of land" (13).

- (4) In the middle of the fourteenth century Donald Earl of Lennox granted to Finlaus de Campsy "that *quarter* of land called Ballinlochnach, the *quarter* called Baleconach, the *half-quarter* of Balltyduff, etc." (14).
- (5) In 1616 King James I granted to the Bishop of the Isles lands which included "the west end of Coll extending to seven *quarters*" (15).

The *ceathramh* or quarter is commemorated in such place-names as begin with Kerry, Kero, Kera, Kirrie in, for example, Kerromenach (middle quarter), Kerafuair (cold quarter), Kirriemuir (big quarter).

Half the *ceathramh* or *quarter* was called the *ochdamh* or *eighth*. It too appears in the place-names. Thus in Islay we get Ouchtofad and Ouchtocladesell in 1507, and their joint extent amounted in the rental to a quarter of land (16). We have to note that *ochdamh* as a prefix may in some cases be confused with *nachdar*, meaning upper or "over" as applied to a modern farm. The *ochdamh* or eighth of the townland is also occasionally found in the charter record. Thus in the year 1506 King James IV granted to John McGillcon of Lochboye "a great eighth (magnam octavem partem) of Aridsermula and an eighth of Knoknaseolaman in the island of Jura" (17).

The above and smaller fractions of the townland continued in use as actual farms in the island of Islay down to the beginning of the nineteenth century, and we can get the clearest idea of these old Celtic denominations from the practice of that island. Although Islay was the seat of the Norse lords and their successors the Lords of the Isles, the old customs appear to have remained unchanged there from Dalriadic times. In his *General View of the Agriculture of the Hebrides*, published in 1811, James Macdonald gives the Islay denominations as they existed at that time as follows: -

- (1) The *ceathramh* or quarter. This was a farm rented at £70 or £80.
- (2) The *ochdamh* or eighth part was half the above.
- (3) The *leorthas*, a name indicating a "sufficiency," was the sixteenth part. Macdonald states that it was the ploughgate, that is a farm large enough for the tenant to provide his own plough: in other words, a whole or "sufficient" farm and not a fraction of one.
- (4) The *cota-ban* was half the above or the thirty-second part of the townland. The Gaelic word means a groat, and this in English was known as the *groatland*. We will explain the meaning of this term in due course when we come to speak of the merkland denomination.
- (5) The *da-sgillin* land was half the *cota-ban* or groatland.

The two last were incomplete farms, their owners or tenants not being in a position to supply their own plough, and Macdonald states that at the time he wrote they were becoming regarded as uneconomical and the proprietors had decided not to make any further lets of such small holdings.

Macdonald supplies us with the key to the acreage of these farms when he tells us that the average rent of land in Islay was 4s. to 5s. per acre. Hence the *ceathramh*, rented according to his statement at £70 to £80, would be a large farm of 280 to 400 acres, and the townland of which it was a quarter would be somewhere between 1120 and 1600 acres, or 1360 acres on the average. At the best these figures can only furnish us with approximate acreages, and it is most likely that the original townlands themselves varied a good deal in extent according to the quality of the grazing. Robertson (18) states that in Ulster, which had a close connection with the West Highlands, the lesser *ballybiatagh*, which was the Irish name for the townland, was 960 and the greater 1920 acres, but here again we must guard ourselves against supposing that the townlands were measured with mathematical accuracy, although their areas must have tended to approach an average.

In an ancient Irish poem quoted by Skene we have the area of the Irish *ballybiatagh* defined as follows:—

“Two score acres three times
Is the land of the Seisrigh:
The land of three Seis-righs, therefore,
Is the quarter of a Bailebiataigh.”

This makes the Irish *ballybiatagh* or land of the township to have been 1440 acres, and the close approximation of this to the Islay figure can scarcely be accidental.

The above, in bare outline, gives the essentials of the Celtic system as it was in the earliest times. It will, however, be necessary later to show that in parts at least of the Highlands Saxon influence penetrated, resulting in the introduction of new names to express Saxon ideas.

The *Stent Book of Islay* (Lucy Ramsay) shows that the *ceathramh* or quarter was the unit on which the Public Burdens—Land Cess and Contingencies—were uplifted down to the year 1833. In 1718 they were divided among 132 quarters, the share of each being £3 19s. 4d. In 1734 the Stent Roll showed 135 quarters, and this number remained constant down to 1834 when the Cess was first uplifted as a percentage of the valued rent. Presumably after this the old measures fell into desuetude.

SAXON DENOMINATIONS.

Saxon influence in Scotland dates back to the foundation of the kingdom of Northumbria in the sixth century, after which there was a

very considerable influx of an English population into the Lothians and Berwick. English colonies were also established at various seaports along the eastern coast of Scotland, and the influence of these settlers was later reinforced by the grants of land in Scotland to English religious houses and by the coming of English ecclesiastics to Scottish religious houses such as Whithorn and Coldingham (19).

To English or Saxon influence is to be ascribed the introduction of the first real land *measure* in Scotland. This was the *acre*, and it appears to have been brought over from the Continent by the Saxons when they first came to England. In those parts of Scotland which they colonised the ancient Celtic *bally* and *pit* would become the *tuns* and *hams* of the English settlers, and the old Celtic divisions of quarters, eighths, etc., were replaced by the denominations of the ploughgate and acre (20).

The statute English acre was not merely a definite area but was of definite shape as well. Its form, originally at least, arose out of the necessities of cultivation and was adapted to the work of the plough, which was drawn by four pairs of oxen or eight in all. The length of the acre was a *furlong* of 40 poles, and a furlong was actually a *furrow-long*, that is the distance which experience had shown the plough team to be capable of drawing the plough without stopping to rest. The pole was $5\frac{1}{2}$ yards or $16\frac{1}{2}$ feet, and is supposed to have been the length of the great ox goad. The measure known as the *rood* or *rude* was a furlong in length by one pole in breadth, and the *acre* consisted of four roods lying side by side. The width of the rude and of the acre strip doubtlessly were determined by the distance necessary for turning the plough team at the end of the furrow. The statute English acre was thus $(40 \times 16\frac{1}{2}) \times (4 \times 16\frac{1}{2})$ square feet—that is, 43,560 square feet or 4840 square yards in area (21).

The Scottish acre was larger than this, and its genesis can best be seen from certain old enactments ascribed to King David I. It was based on the linear measurements known as the *ell* and the *fall*, which in the statutes referred to were defined as follows:—

Of the Eln.

The eln aw to contain in length . xxxviij. inch met with the thawmys of iij men that is to say a mekill man and of a man of messurabill statur and of a lytill man bot be the thoume of a medilkinman it aw to stand or ellis efter the length of iij bear cornys gud and chosyn but [without] tayllis, the throwm aw to be messurit at the rut of the nayll (22).

It would appear that on the average the thumbs of Scotsmen were broader than those of Englishmen, for the Scots inch exceeded the English by the fraction $\frac{1}{625}$. Thus the Scots ell was equal to 37.0598 English inches (23).

The genesis of the Scottish acre is shown in the following enactment:—

The Mesuring of Landis.

In the first tyme that the law was made and ordainit thai began at the fredome of halikirk and syne at the mesuring of landis the plew land thai ordanit to contene . viij . oxgang / the oxgang sall contene . xij . akeris The aiker sall contene four rude / the rude . xl . fallis The fall sall hald . vj . ellis (24).

Thus we see that the old Scottish acre was measured by the fall instead of by the pole as in England, and the Scottish fall was six ells or 37.0598×6 inches, *i.e.* 222 inches or $18\frac{1}{2}$ feet English measure.

The Scottish acre therefore contained $(18\frac{1}{2} \times 40) \times (18\frac{1}{2} \times 4)$ or 54,760 square feet. It was therefore equal to about 5 English roods or about 25 per cent. greater than the English.

It may be mentioned in passing that the Irish acre was greater still. It was measured by a perch seven yards or 21 feet in length and thus contained 70,560 square feet or a little less than $6\frac{1}{2}$ English roods.

The *acre* was never used in early times in Scotland to express the superficies of large areas of land, and it was not until the eighteenth century was nearly finished that it became customary to describe farms as consisting of so many acres. This usage in fact only became general after the lands had been surveyed by modern methods. The earlier use of the acre was to describe the smaller areas such as ploughgates and oxgangs or small town lots. Thus we come across "towns acres," "village acres," "vicar's acre," etc., where the use of the term is to describe what would nowadays be designated "small holdings."

If we examine our earliest Scottish charters, those for example of David I and his immediate predecessors, we will find that in the case of very large grants of land they are simply described by their boundaries. These were usually natural such as streams, trees, standing stones, and such like, but sometimes it was found necessary to mark the marches in parts by artificial means and this was usually done by cutting ditches or trenches. It may be that the original use of the standing stones themselves was to mark the boundaries of long-vanished estates and that they derived their sacred character from this fact, in the same way that *Terminus* was a god of the ancient Romans (25).

In the case of agricultural land—what would nowadays be called farms—the land, as shown by these ancient charters, was measured in two ways. In the case of arable land it was described as consisting of so many *carucates* or ploughgates, the carucate being originally the land which a plough team could deal with in a single year. In the case of pasture land its extent was usually defined by stating the number of animals—horses,

oxen, sheep, and swine—which it could sustain. The *carucate* was the Northumbrian equivalent (but not in extent) of the *hide* and *suling* of southern England. Its use was confined to arable land only and it was not used for meadow or pasture. The following twelfth century example will illustrate this. About the year 1190 Henry of Molle confirmed to the monks of Kelso a grant made by Eschina his wife which comprised “two oxgangs of land with toft and croft and *pasture sufficient for four hundred sheep, sixteen cattle, two work horses, and twelve swine* in the territory of Molle” (26).

The idea of getting a rough estimate of land by computing the amount of human or animal labour required to work it or by the number of animals it can graze is not limited to any one country or people. Similar rough measures of land are to be found in India and Burma to-day. Thus in the case of rice land in Burma a rough measure was the area which four people could plant out in a day. The British Government, however, introduced the acre measurement and it was found that an acre corresponded on the average to this “four-people-plant” area, and the one term became a synonym for the other. It is most probable that the same evolution took place in connection with the ploughgate or *carucate* and that it began as a rough measure of land without any reference to the acre, but that at a later date it became standardised at a fixed number of acres.

The *carucate* is usually defined as the amount of land which a single plough could deal with in a single year. As we shall show, this definition, while it may have been originally correct, can scarcely be true of the later standardised *carucate*. That was divided into eight oxgangs, for the old plough in England and Saxon Scotland was pulled by eight oxen. A common method of working the land in these parts was for four tenants or *husbandmen* to own the common plough, each providing a pair of bullocks. Hence the *carucate* or ploughgate consisted of four *husbandlands* or eight *oxgails*, *oxgangs*, or *bovates*. An oxgang thus became the equivalent of 13 and a husbandland of 26 Scots acres.

An attempt to standardise the *carucate* at a fixed number of acres was made, as shown above, as early as the reign of King David I. The enactment we have quoted laid down that the “plew land” was ordained to contain eight “oxingang,” and the oxgang was to contain thirteen acres. Thus as early as the twelfth century it had been ordained that the ploughgate or *carucate* should contain 104 Scottish or 130 English acres. An examination of the charter record shows, however, that despite this enactment the *carucate* often contained a varying number of acres, as did its fraction the *oxgang*. In the Rental of the Priory of Coldingham, compiled in 1298, we find that 8 bovates or oxgangs comprised a *carucate*, but that the number of acres in the bovate varied in different localities. Thus in some parts of the monks’ estate it was as high as 14 acres, in others it was

$13\frac{1}{2}$, $12\frac{1}{2}$, 10 or 8 acres, so that the carucate might vary between 112 and 64 acres (27).

On the other hand an inquest held at Aberlady in 1296 found that the tenement of Ballincreif with the messuage, garden, and pigeon house were worth 34s. 9d. And the owner had in demesne 10 carucates and 54 acres of arable land, each worth with its grazing 21d. or a total of £95 14s. 6d. The total estate is thus found to have been 1094 acres, made up of 10 carucates and 54 acres. Hence the 10 carucates amounted to 1040 acres, or 1 carucate to the standard amount of 104 acres (28).

In the year 1153 Gregory de Perci granted to the monks of Kelso, for the soul's health of King David I and Henry his son, a ploughgate of land in Heton containing *five score and four acres*, next to the land belonging to the hospital of Roxburgh. This is the standard or legal rate of 104 acres (29).

In the year 1585 a decree of the Scottish Exchequer laid down that "thirteen acres extendis and sall extend to ane oxgait of land" (30).

The above examples show clearly that from the reign of King David the First 104 acres was the standard ploughgate, although that standard was not adhered to in all cases.

Defined as above, it is not easy to accept the definition of a ploughgate as the land which could be ploughed by one plough team in a single year. The old plough drawn by oxen was a slow affair, and owing to the absence of underground drainage ploughing operations did not usually begin before March. The modern two-horse plough does no more than 40 or 50 acres on the average (31). We have to remember also that a large proportion of the arable was what was called *outfield*, and that only a fraction of this was turned up in any one year. A more suitable definition of the ploughgate of 104 acres would be that it was the arable land pertaining to a one-plough holding—that is, the *cultivable* land of the holding rather than that actually cultivated, or in old phrase land "where pleuch and scythe *may* gang."

This would appear to have been the difficulty encountered by Capt. Thomas when he set out to determine the superficies of the davach—a Celtic denomination which we shall consider later but which was the equivalent, in the locality with which Thomas was dealing, of four ploughgates of 104 acres each or 416 acres in all. From certain data which he had in his possession relating to rents he set out to find the total production capacity of a davach in the thirteenth century, and came to the conclusion that "nothing like 416 acres were cultivated in a davach" (32). His difficulty could be met by accepting the definition of the ploughgate as the *cultivable*, but not necessarily the actually *cultivated*, land of the one-plough holding. At the present day the arable area of a one-plough farm is usually much greater than is ploughed in any one year, much of the land being in grass fallow as part of the rotation of crops.

The Scottish ploughgate or carucate was the unit on which military

service was assessed and by which public burdens were apportioned. The possession of a ploughgate, if held of the Crown, was also the qualification for voting for a Parliamentary Commissioner. It was probably by reason of these facts that Thomas Thomson considered that the terms *carrucata terrae*, *bovata terrae* met with in early charters proved the existence of an ancient taxation of Scotland (33). It would be strange indeed if it required the imposition of a *regium gildum* to bring into being what we have shown to have been a convenience invented by cultivators themselves in connection with their daily occupation, and the expression of such ideas would appear to indicate a very second-hand knowledge of agricultural practice and history on the part of some of our most learned men of the past.

Robertson has shown also that the ploughgate in Scotland was the unit on which the larger divisions of the shire and thanage were based, but a discussion of these is outwith the scope of the present essay. It is to be noted that although the merkland valuation was introduced all over Scotland as early as the thirteenth century, the older Saxon denominations continued in use in eastern Scotland long after that date, and as late as 1627 we find lands in the Lothians and Berwickshire measured in husband-lands and oxengates (34).

CELTIC NAMES FOR THE PLOUGHGATE AND ITS FRACTIONS.

While it is clear that it is to the Saxons that we owe the introduction of the acre, it is not quite so evident that the Celts did not themselves possess some equivalent of the Saxon carucate or ploughgate in the original meaning of that word as the land ploughed by a plough team in a single year, for as we have shown these rough-and-ready methods of reckoning the extent of land are common to many peoples. However that may be, there are certainly Celtic words which convey the same idea. In Ireland we find the *seisreach* from Gaelic *seiser*=six, and *each* meaning a horse, the name being derived from the fact that the old Irish plough was drawn by six horses (35). Robertson, however, appears to regard this as an Irish term for an English idea. "The original Irish name for the measure introduced by the English is said to have been *seisreach* or six-horse-land" is his comment. As regards Scotland, it appears to be impossible to decide with certainty whether the words in Gaelic which express the idea of the ploughgate or its fractions were used in days antecedent to the impact of Saxon influence or not, and all that we can do is to enumerate them and note the occurrence and meaning of each.

The *darach* is the commonest of these. It was originally supposed by some Celtic scholars that this word was derived from *damh*, an ox, and *achadh*, a field, and that it meant oxgang. Thomas seemed to consider it as being from *damh* an ox and *ach* an augmentative particle and gives

its meaning as "a full team of oxen," or, in other words, the ploughgate. Skene dismissed the first derivation as erroneous because, he states, in the *Book of Deer* the oldest form is *dabach* and the last syllable is inflected (36). Macbain (37) gives its meaning as a "seed vat," and Prof. W. J. Watson (38) appears to accept this view. We may take it, then, that in view of the opinion expressed by the two most distinguished modern Celtic scholars the older derivation may be abandoned.

The name makes its appearance at an early date. Thomas remarks as follows: "The lands of Scotland North of the Forth and Clyde and all the Isles *before the ninth century* were divided into davachs." He does not give his authority for this statement, but is probably referring to the *Book of Deer* where the name occurs for the first time among the *notitiæ*. These, however, are supposed not to have been written before the year 1150. The first entry in the *Book of Deer* (39) does not of course throw any light on the meaning of the term. It is to the effect that "Maelcolouim son of Cinaed gave the King's share in Bibdin and two davachs in Upper Rosabard." Skene appears to consider that it was the land of the Celtic township which he found to consist of twenty houses in the ancient kingdom of Dalriada. The name, however, is not found either in the records or place-names of the greater part of what was Dalriada, nor is it found in the topography of Galloway or of Ireland (40). It appears to have been confined largely to Scotland north of the Forth and Tay, but even there it is rare in place-names. A modern County Directory shows only Dava Mains (Aberdeen), Davochbeg (Sutherland), and Davochfin (Sutherland), and the shortened form "doch" in a few names like Docharn (Inverness), Dochcarty (Ross), Dochroyle (Ayr), and it is doubtful if all such are derived from *davach*. When we consider the frequency of names beginning with *bally* and *pit*, and the paucity of those derived from *davach* even in localities where it was known to have been a measure of land and its total absence in the south-west, we may well doubt Skene's conclusion that it was the land of the township.

As to its extent, there is a great deal of evidence which has been marshalled by Thomas that west of the Spey it was a ploughgate, but that in Aberdeen and north-east Scotland generally it was a four ploughland (41).

In the *Exchequer Rolls*, 1158, we find in the accounts of the Camerarius ultra Spey "the firm of xls de Westrehalldavoch and of xls de Easterhalfdavoch," that is the whole davach referred to had been rented at 80s. or £4 Scots. But we are informed that as a bovate had been devastated a deduction of 10s. from the rent had been made. The bovate was thus $\frac{10}{80}$ or $\frac{1}{8}$ of the whole, showing that the whole davach was equal to a ploughgate of 8 bovates (42).

In eastern parts, however, it contained four ploughgates. Thomas quotes from the Gordon rental of Badenoch, 1603, "Elone four pleuches"

and states that there was a marginal comment to the effect that "Macomtosh has this dauch in fee." He also quotes from Gordon of Straloch (1661-1670) to the effect that in Aberdeenshire the districts were divided into "pagi" or "daachs" which contained as much land as could be broken up by four ploughs in one year, but *that then owing to more land having been cleared of wood the arable in a "daach" was more than doubled*, and he states that by 1800 a davach of ordinary extent required three times the number of cattle to labour it that were formerly employed (43).

We thus see that the following were characteristics of the *davach*: (1) its derivation indicates that it had special reference to arable land, (2) it contained a varying number of ploughgates according to locality and date. I suggest that it was originally the *arable* area of the Celtic township, but that when arable farming became increasingly important the name may have been transferred to the townland as a whole. According to the progress made in arable the davach would be of a varying number of ploughgates from one upward.

The davach and ploughgate were at one time the units on which military assessment was based. Thomas gives examples as follows:—

- (1) In 1303 the lands of Christian of Marr in Arisaig and Moidart supplied a ship of 26 oars with men and victuals, and the $5\frac{1}{2}$ davachs of Glencg supplied in 1343 a ship of 26 oars (44).
- (2) In 1304 the Earl of Atholl was informed that Lochlin [Maclean] and his friends had threatened that each davach of land should furnish a ship of 20 oars against the English, *i.e.* one man from each household (45). This appears to be a proof of Skene's statement that the ancient Celtic village contained usually 20 houses.

In one of the examples which we have given above of the use of the Celtic *quarter of land*, the quarter would appear to have been the unit on which military service was based. In that case it is seen to be equated with the davach, and if the davach contained a ploughgate only then there would be only 4 ploughgates in the townland. If, on the other hand, the davach contained 4 ploughgates then the townland would be a 16 ploughgate, which it was seen to have been in Islay at the close of the eighteenth century. In short the number of ploughgates in a davach depended on the progress of arable cultivation and was not a constant equation.

Another and much rarer term for the ploughgate was the *arochor*. The following are some examples of its use:—

- (1) In the middle of the thirteenth century Earl Maldowen of Lennox granted to Donald Maeynel the fourth part of an *harathor*, the reddendo being the $\frac{1}{20}$ part of the service of a man-at-arms (46).
- (2) In a grant of Earl Alwin to Maldowen, Dean of Lennox, there is included the service due from *two arochor* or a *carucate* and a half

of land. This shows that the *arochor* was a $\frac{3}{4}$ carucate, as is proved also by the next example (47).

- (3) In a thirteenth century charter by Alexander of Dunhony to Sir Patrick Graham there is included "three quarters of a carucate of land of Akeacloy nether *which in Scotch is called Arachor*" (48).

From the last two examples we see that the *arachor* was a smaller ploughgate equal to $\frac{3}{4}$ of the carucate, that is to say 78 Scots acres. Its use appears to have been commonest in the Lennox, which was a typically Gaelic district.

Rath was the name applied in northern Scotland to what was called in the south a husbandland or the fourth part of a ploughgate. In ancient Ireland it was a name in common use and is very frequent in Irish place-names. An early Irish historian states that "the Irish kings and chieftains lived at this period (A.D. 637) in the great earthen *raths* or *lisses*, the ruins of which are still so numerous in Ireland" (49).

In connection with its use in Scotland, W. F. Skene states: "The smallest possession held by a free farmer appears to have been two bovates, or oxgangs of land, or the fourth part of a ploughgate, called in some parts of the country a husband-land, and we find that in the north of Scotland the name of *Rath* was given to this portion of land, a name which in the Irish laws signified the homestead which formed the lowest tenancy." He then gives the following example of its use:—

- "William, son of Bernard, grants to the monks of Arbroath two bovates of land which are called *Rathe* (*que vocantur Rathe*) of the territory of Katerlyn (in Kincardine-shire) with the right to pasture twenty beasts and four horses on the common pasture of Katerlyn; and the same person grants to the monks two other bovates of land in the territory of Katerlyn, consisting of seven acres of land adjoining their land which is called *Rathe*, on the north, and nineteen acres of land adjoining these seven acres on the seaside towards the east, under that culture which is called *Treiglas*, thus making up the twenty six acres of which a husbandland consisted" (50).

The word *rath* enters into our topography as a prefix in places like Logierait, Ratho, Rothiemurchus.

In the West Highlands the plough was drawn by four horses usually abreast and, as in the case of the Lowlands, was often owned by four men, each of whom supplied a horse for the common plough and who each had a quarter share in the one-plough farm. Such a farm was called a *four-horse-ploughgang*, and in the Minutes of the Synod of Argyll (51) for 1640 we read that "it hes beine ane ancient custome that every kirk officer was in use of being payed of a half firlet of meall of everie four horse ploughgang of land, etc." The quarter of this kind of farm was called a *horsegang*,

and in the *Statistical Account of the Parish of Kilmartin* (Argyll) we read: "The tenants, particularly of arable farms, have but small possessions, only the fourth part of a farm or what is called here a *Horsegang*." It was thus the same as the *rath* in northern Scotland, but was an English name of later introduction.

NORSE DENOMINATIONS.

Just as the Saxon ploughgate superseded the Celtic denominations in the east and north-east of Scotland, so in the Orkneys and Shetland, in Caithness, the Hebrides, and the western shores of Scotland the Norse denominations of the ounceland, pennyland, and fractions of the pennyland were imposed on the Celtic townland and its divisions. The grounds for supposing that the ounceland and pennyland were of Norse origin are based on the facts that (1) in the Orkneys—the most Norwegianized part of the country—these denominations were in full use until quite modern times, as in fact they were also in some of the Hebrides, and (2) they are found only in parts of the country colonized by the Norse. Norse place-names are found in the parts mentioned above and in Ayr, Renfrew, Bute, Galloway, and as far east as Roxburghshire.

The Norse invasions of Scotland began about the year A.D. 780. Under the date 794 the Annals of Ulster record the ravaging of all the islands of Britain by the Gentiles, and in the same year the Annals of Innisfallen record the ravaging of Icolmkill. Brøgger (52) states as his opinion that the main colonization took place in the three generations between A.D. 780 and 850. In the Nordreys—Orkney and Shetland—it was complete, but on the southern Hebrides and mainland coasts less so. The place-names, however, indicate that for about three centuries a Norse dominion was established all over the islands and part of the coast from Caithness to Kintyre, and that it was exercised sometimes by local Norse lords, sometimes by the Earls of Orkney, and finally by the Kings of Norway.

The Norwegian denominations were imposed upon the ancient Celtic townlands, each of which appears to have been called upon to pay a seat or tax of one ounce of silver to the Norse overlord. In Orkney and Shetland the ounceland, as it now came to be called, was divided into 18 parts, each called a pennyland, and this division of the ounceland into 18 parts is also found in Lewis and parts of the north-west mainland. There is some evidence that this seat of an ounce of silver on each Celtic townland or davach was made as early as the time of Harald Fairhair, for it is related that in 902 the Earl of Orkney was exempted from paying seat. In 1019 the South Isles (Hebrides) were paying seat to the Earl of Orkney. It is clear from a study of the oldest Orkney rentals that the ounceland and not the pennyland was the unit of taxation, for we find frequent instances in these of ounce, two-ounce, and half-ounce lands all over the islands (53).

There is no evidence that the ounce of silver was ever coined into 18 pennies, and it would appear that the division by 18 was effected in order to make the pennyland equal in value to the old Saxon penny. The Norse ounce weighed 412.58 grains, and the eighteenth part of this is closely 22.5 grains, which is the equivalent of the old English penny, 20 of which went to the Tower ounce of silver weighing 450 grains Troy. In the southern islands, however, the taxation was made to conform to this English Tower weight of 450 grains, and in these parts there were 20 pennylands in the ounceland (54).

These taxes were paid to the overlords, but it is most probable that the local indigenous Celtic possessors were left for the most part undisturbed to draw the old Celtic dues of *cain* and *cuddeich* from their dependents, while they paid the seat to their Norse superiors. In any case we find in a locality like southern Argyllshire, where the place-names exhibit a fairly extensive Norse colonization, that these ancient dues were being lifted as late as the sixteenth century—long after Norse dominion had disappeared—and the theory that best fits the facts is that they were never abolished but continued during the period of Norse dominion (55).

As we have said, the davach, pit, or bally of Celtic times became known as the *ounceland*. In the Latin charters this is called *Unciata*, but this latter word was translated back into Gaelic as *Tirunga* from G. *tir*, meaning land, and *unga*, meaning an ounce. This word is also encountered in the charters as the *tirung* or *terung* of land.

The Latin words for pennyland were either *denariata* or *nummata*, and the Gaelic *peighinn*. The most satisfactory definition of the Norse *pennyland* is that it was, in some parts, the $\frac{1}{18}$ and in others the $\frac{1}{20}$ part, of the *ounceland*, which latter corresponded to the older Celtic townland—the davach or bally.

W. F. Skene makes the statement, when dealing with these Norse denominations, that "they were adapted to the existing divisions [*i.e.* the older Celtic divisions] of land, which could not have been altered without interfering with the whole framework of Society." It is therefore worth while considering for a moment just how this adaptation was effected. As we have already pointed out, Skene's theory was that the ancient Celtic township of Dalriada, for example, consisted on the average of 20 houses, and that attached to this was a townland at first mainly used for grazing cattle, but with an arable area as well which we have suggested was the original *dabhach* or *davach* (56). The usual subdivision of this townland in Scotland was into halves, quarters, eighths, etc., bearing the Gaelic names of *leth*, *ceathramh*, *ochdamh*, etc. The ounceland introduced by the Norse had in the southern isles 20 pennylands, so that the half townland or *leth-bhaile* would contain 10 pennylands. This size of holding is found in charters, as in the case of the Ten Pennylands of Arran, an estate

belonging to the Stewarts of Bute. The *ceathramh* or quarter would become a five pennyland, a denomination also encountered in the records. Thus we find that in 1309 King Robert I granted to Roderick, son of Alan, half a davach in Morvern, viz. the 5 pennylands of Gedenall and the 5 pennylands of Glenbressell, etc. (57). The *ochdamh* or eighth would be a $2\frac{1}{2}$ pennyland, and so on.

Proof that the ounceland and the davach in the west and north-west were one and the same is available from the records, of which the two following cases are examples:—

- (1) In 1309 King Robert I granted Roderick, son of Alan, lands which included the three davachs of Knoydartin, Morvern. In 1536 King James V granted to Donald Cameron the 60 pennylands of Knoydart. A davach was thus equal to 20 pennylands or one ounceland (58).
- (2) In 1505 King James IV made a grant of lands to Ranald Alan-on which included "the davach called in Scotch *le terung* of Pablis-gerry, the davach called *le terung* of Bailranald . . . the 2 davachs (*le terungs*) of Sanda and Borwria" (59). This establishes the identity of the davach and the *tirunga*, which was the Gaelic equivalent of the ounceland.

It is therefore important to remember that the davach, ounceland, *tirunga*, and *unciata* or *unciate* are all different names for the same thing—the Celtic townland.

As time went on, however, the pennyland itself appears to have become a recognised holding. Skene makes the comment: "In the western districts we find the penny land also entering into the topography, in the form of *Pen* or *Penny*, in such names as Pennyghael, Pennyross, Penniollach, while the halfpenny becomes *Leffen* as in Lèffen-strath, and if the group of twenty houses, which we found characterising the early tribe organisation in Dalriada, was the davach, then we obtain the important identification of these houses or homesteads with the later penny lands" (60). The fact that the land pertaining to the individual house corresponded exactly to the pennyland may have been fortuitous, but there is ample evidence, as we have already said, that these pennylands and even fractions of the pennyland, became individual farms in later years. There is of course the place-name evidence—the existence of places beginning with Pen and Penny—as Skene has pointed out, and these names could only have been applied to individual places. There is besides the evidence of charters and rentals to reinforce that of the place-names. Thus in Kintyre, to name only the locality with which the writer is most familiar, we find names like Peniver or Ivar's pennyland, Pennygowan or the Smith's pennyland, Pennyseorach or the toilsome pennyland, and so on. In 1329

King Robert the Bruce granted a charter of the lands of Ugadale to Gilchrist Macay. The grant was of four pennylands, which are detailed by name so that they must have been individual holdings. The most convincing evidence is from the island of Mull where the pennyland was the commonest size of holding down to the seventeenth century. The 1588 rental in the charter to Maclean of Dowart noted on by Gregory conveyed church lands in Mull, Iona, and Islay to Maclean in the year 1588. In Mull only are the lands specified in pennylands, but in that island no other denominations are used. Out of 32 holdings in Ross of Mull the size of the individual holding varied from a 5-pennyland to a $\frac{1}{2}$ -pennyland, but the majority were 1 or 2 pennylands. In 10 of the 1-pennyland holdings the lands were rented at a uniform rate of £1 4s. 2d., and in the case of 6 others at £1 2s. 6d. In other parts of Mull 12 holdings are included in the grant, of which 11 were single pennylands rented at a uniform rate of £1 16s. 8d. These figures show that the division into pennylands had been made, in so far as their rental values were concerned, with great uniformity. As late as 1674 a rental of the estate of Dowart in Mull shows the lands of Aross, Morrenish, Ross, and Torsay, all expressed in terms of the pennyland denomination, but in the same rental the lands of Morvern and Tiree are given in merklands (61).

In Kintyre the one and only use of the pennyland occurring in the records is that already cited in the charter to Mackay of Ugadale in 1329. In the Kintyre Crown rental of 1505 all the holdings are expressed as merklands. Pennylands occur in Knapdale (mid-Argyll) records in 1353 and in those of Arran in 1433. The *tirunga* or ounce-land is found in Barra records as late as 1655 (62). These facts show that although the merkland was introduced into Scotland in the fourteenth century, the more ancient Norse measures remained in use in parts of the Highlands up to the eighteenth century. There is one notable exception, viz. the island of Islay, where there is no instance of Norse measures of land having ever been used. This may be ascribed to the fact that Islay was the headquarters of the Norse lords and its land held in domain, so that it would not be required to pay tax. Consequently the pennyland and similar names are absent from its topography.

We meet also in the records with the fractions of the pennyland which were as follows: —

- (1) The half-pennyland was in the Latin charters either *dimidia-denariata*, or *obolata*. In Gaelic it was *leth-pheighinn*, pronounced *leffen* and usually spelt *lephen*. This is a common prefix of Gaelic farm names in Argyllshire, occurring in such names as Lephenmore, Lephenbeg, Lephenstrath, Lephenecorrach.
- (2) The quarter pennyland or farthingland is expressed in Latin as

- quadrata*. The Gaelic is *feorlin*, a name fairly common in Argyllshire. It also takes the form Farden and Farland in place-names.
- (3) The half farthingland was called in Gaelic the *cleitag*. Macbain in his dictionary defines it as "an 8th part of the penny land."
- (4) The *cionag* was, according to Macbain, the fourth part of the *cleitag* or eighth part of the farthingland.

As to the approximate extent of the pennyland, this, if we are to judge it by the rental values, varied a good deal in different localities. Reverting to the Islay denominations given by Macdonald at the end of the eighteenth century and which have been detailed above, it will be remembered that the single plough farm was the *leorthas*, which was a quarter of the *ceathramh* or $\frac{1}{16}$ of the davach or ounce-land. But the *ceathramh* was the equivalent of five pennylands, so that the pennyland, had such existed in Islay, would have been slightly less than the one-plough farm. Marshall in his *Agriculture of the Central Highlands*, describing conditions in Mull at the close of the eighteenth century, gives us the following on the Mull pennylands at that date. He tells us that they were of different sizes. "Of three pennylands on the south side of Loch Scriden, one consisted of 64 acres of infield arable land, 16 of outfield arable, 19 of green pasture, and 497 of hill pasture; another contained 106 acres of infield arable land, 44 acres of outfield arable, 19 acres of green pasture, and 704 acres of hill pasture; and the third consisted of 68 acres of infield arable, 27 of outfield arable, 29 of green pasture, and 872 of hill pasture. This latter township was occupied by eight tenants, each pasturing twelve cows, with their followers" (63). As a tenant usually supplied one horse to the common plough, this last holding would appear to have been a two-plough farm. Whether these Mull pennylands represented, at the date referred to, the actual twentieth part of the ancient Celtic township is, of course, a question not easy to answer. In the course of centuries many changes of boundaries may have taken place. There is some reason to suppose that the name simply became synonymous for a "farm."

A point of much historical and antiquarian interest is whether there was a currency in circulation in the West Highlands during Norse times. The name pennyland would lead us to believe that there was. When the Norse came to Scotland they had no currency of their own, and conducted their business by using as mediums of exchange ingots of metal and the coarse woollen cloth known as *wadmál*, of which the Harris tweed of to-day is the lineal descendant. There is no evidence of currency in Norway before the end of the tenth or beginning of the eleventh century. After its introduction we are told that penny gavel or penny tax, such as was imposed on the subjects of the Norse in Scotland, was a familiar institution among the Scandinavian *thegns* (64). No coins were minted in Scotland

before the reign of David I. by which time Norse dominion in the Hebrides was approaching its end. In England, on the other hand, there had been a currency of silver pennies long before the Norman Conquest, and we have seen that in Orkney the Norse ounce of silver was so divided as to give 18 English pennies. It may be of some significance too that the earliest silver coins found in Scotland were from the western islands, and that they are Saxon coins minted in England. These facts seem to point to the conclusion that the currency used by the Norse in Scotland was the English sterling penny of $22\frac{1}{2}$ grains.

Dealing with this subject in his *Legal Antiquities*, Cosmo Innes made the following remarks: "As a problem of history—perhaps the oldest problem of our history—it would be of great interest to ascertain when and by what authority, by what masters—political masters, or territorial—the western half of Scotland, the wildest shores of our Highlands, and the wildest islands, were measured and valued in marklands, shillinglands, pennylands, farthinglands, long before money—coined silver—was generally used or known as an element of rent on the other side—the agricultural side of Scotland— . . . but from the earliest period in which we have any light concerning their customs, it was the practice amongst all those lands of the Norsemen. . . . I wish you to remember that the great high road of northern commerce—of trade, pilgrimage, and crusade, of piratical adventure, of war—flowed down the Baltic, and poured in full stream upon our shores and islands, bringing with it a knowledge of money—a received coinage and currency which is necessary for war and plunder, no less than for peaceful commerce" (65).

The imposition of the flat rate of the ounce of silver on each town land was of the nature of a capitation or house tax—an inequitable form of taxation. That the people of these islands got accustomed to it is apparent from the fact that in or after the year A.D. 1210 Dovenald, son of Reginald—the same Donald who was the eponymous of the Clan Donald—granted to the monks of Paisley Abbey an annual grant in perpetuity of *one penny from every house on his territories that emitted smoke* (66). By this date, of course, there could be no doubt of the existence of a currency, and the contribution must have been raised by the collection of pennies from the individual houses. The fact that such a cess was imposed on his people by the successor and inheritor of the possessions of the Norse lords can hardly mean anything else than that the people had been accustomed to pay taxes in this manner in times gone by and that a currency had been in circulation.

It is necessary to point out that the Norse scale of land denominations in descending order was the ounceland, pennyland, halfpennyland, farthingland, and smaller fractions. It did *not* include poundlands, merklands, or shillinglands. The latter had a quite different historical origin and belonged to a different order, which we will now proceed to discuss.

THE MERKLAND DENOMINATION.

The word mark or merk—the latter is the Scottish spelling and it is preferable to adhere to it as a reminder of the difference between English and Scottish currency—is derived from the Latin *pondus marcatum*, and its origin dates back to a time when bullion, and not coined currency, was the medium of exchange, and when commodities were exchanged for weighed amounts of various metals. *Pondus marcatum* was a marked weight and probably its use represents an intermediate stage between the weighed metal and actual coins. Later the merk became “money of account” and the equivalent of 160 sterling silver pennies or 13 shillings and 4 pence. As the mark of silver—*marca argenti*—it occurs in the charters of King David I of Scotland (1124-1153). This monarch was the first king of Scotland to introduce the feudal practice of granting land in return for knightly service—that is, for the provision of so many armed knights, the service of one of whom was known as a Knight’s Service. This was valued at £20 or 30 merks, and in certain cases the money was paid in lieu of the service. Such grants of King David were those of certain lands to Walter de Riddale “to be held in fen for the service of one knight,” and of the lands of Alstancufurd to Alexander de St Martin “to be held of the king by the service of half a knight: and the king engages to pay every year from his treasury ten marks of silver until he make up a full knight’s fee” (67). This would appear to be the true origin of the merkland—the *marcata* or merk’s worth of land—for in the case of such grants it would be a convenience for those who had to provide less than a full knight’s fee to estimate their lands at a fraction of its value in merks. Hence arose the denomination of the *merkland*, which may be defined as land assessed to pay a yearly rent of one merk or 13s. 4d., i.e. the $\frac{1}{30}$ part of a knight’s fee.

In the succeeding reigns the feudal usages became firmly established, and we find David’s grandson William the Lion confirming his grandfather’s grant to the Bruces of Annandale *per servitium centum militum* (68). During William the Lion’s reign a stenting or taxation of lands was twice imposed on the country, firstly in 1189 and again in 1211, in each case the sum of 10,000 marks being raised. Such taxation must have necessitated a valuation of the land in merks, not only of lands already given out for military service of which the money extents would be known, but also of the remainder held in thanage and Scottish service. This valuation would doubtless help to familiarise landowners with the practice of describing their lands in terms of money. It is doubtful, however, if much of the land of Scotland was given out in knight’s fees before the beginning of the fourteenth century, for when the Exchequer Accounts open we find in the fragmentary rolls of Alexander III (1264-66) that although the feudal dues of Ward, Relief, and Marriage occur among the royal receipts,

the greater part of the Crown lands were still in thanage and paying rents in kind and rendering Scottish service only (69). A note by the transcriber of these rolls calls the attention of the reader "to remember that be thir rollis it is verified that in everie schyre alмест, the king had castellis and houses, ane or mae, whilkis wer furneissed with wyne, wheit, malt, meill, provand, salt, beif, pork, hering, whyte fische, cheise, etc. in gud quantitie. That the king had manssis, store rowmes, forestis, and mailles and fermes, in many of the saidis schyres and bailzeries" (70). The reference is to the lands of the thanages which later became fendal baronies given out for military service or knights' fees.

The money measure of land—by pounds or merks—makes its appearance earlier in England than in Scotland, and we find examples of it there towards the end of the twelfth and during the thirteenth centuries. The following are taken from Bain's *Calender of Documents relating to Scotland*:—

- (1) In Northamptonshire in 1192–93 Geoffrey fitz Piers includes in his account "lands granted to Earl David £16 and 1 mark by tale, in Nessitona to make up 100 *marks of land* which the King gave him."
- (2) In Cumberland in 1242 the sheriff is commanded to enquire how much each of the manors assigned to A[lexander] K. of Scotland *in the extent of his 200 librates of land* was wont to pay to the king in cornage.
- (3) In John de Baliol's account of 1249–50 it is stated "that he is not to answer therfor as the K. of Scotland has the county manors from which the farm [rent] was in use to be paid *in the extent of 100 librates of land*."
- (4) R. de Quincey Earl of Winchester and Matillidis his wife appear by attorney in the year 1251 *versus* Franco de Soun and Sibilla his wife in a plea of *the third part of £10 13 of land* in Sturminstre (71).

In Scotland the money values of land—the *librate* and *merkland*—are not, however, found before the fourteenth century and appear to be entirely absent in the charters of King David I. When, however, the struggle for independence began in the early fourteenth century the provision of armed knights became a national necessity of first importance, and knightly service gradually replaced the older Scottish service in which arms and armour were not specified. The thanages thus became changed into fendal baronies. One result was to reduce the royal income, for the older rents in kind were no longer exacted, and so we find that in 1327 it became necessary to levy a tenth penny of all rents as a special grant-in-aid to King Robert I (72). Another result was, of course, to introduce money values of land, as the knight's fee was £20, and those who held lands of less value than this would have to make their contribution in money.

From now on the merkland begins to make its appearance in Scotland, although the change came slowly. The following are some early examples:—

- (1) In 1295 King John Baliol granted to William of Selkswryth *ten merks of land* with their pertinents in the tenement of Cobainstun [Lanark].
- (2) On 20th May 1319 King Robert I granted to Duncan, son of Murrythach, two quarters of Ratheon and two of Altrenmonyth in Levenax *equal to seven marks of land* (73).
- (3) On the last of March 1329 King Robert I granted to Gilchrist Macay "duas *schanmarcates* terre in Kentyr."

The word used here is compounded of the Latin *marcata*, a merkland, and the Gaelic *scan*, meaning old, and is the first instance I have found of what must be the familiar "merklands of old extent" (74).

The use of the merkland denomination, however, occurs but sparingly in the charters of the fourteenth century. It was, of course, an official term, and the older names—the ploughgate, carucate, husbandland, and oxgate in the south-east, the davach in the north, the Norse ounce-land or tirunga and even the Celtic quarters, etc., in the west still continued in use long after this date, as may be ascertained by a perusal of the Crown *Rentalia* in the appendices to the sixteenth century volumes of the *Exchequer Rolls*. By the fifteenth century, however, it had become very common in Crown charters, and in some rentals had entirely replaced the older denominations.

The valuation in merklands was of a quite different nature to that of the Norse ounce-lands and pennylands. In the case of these latter, as we have shown, the assessment was of the nature of a house tax, a flat rate of one ounce of silver imposed on each of the old Celtic townships and distributed among their dwellers at the rate of a penny a house, thus giving rise to the pennyland denomination. The merkland valuation, on the other hand, was based on the true agricultural production of the land and must have been conducted by computing the various items of the old produce rents in the currency of the time. "It was probably the result of separate assizes held from time to time by the Sheriffs and other officers of the Crown; and how old it may be in some cases is difficult to conjecture" (75).

In the south-eastern parts, where the ploughgate was the common unit, the Coldingham rental of 1298 shows that it had been valued as a 3 merkland or 40s. land, and in the Lothians at least this appears to have been a usual rate. The possession of a forty-shilling land of old extent (or the ploughgate) if held of the Crown became the qualification to vote for a Member of Parliament and remained so up to the time of the Reform Bill

of 1832. A decree of the Scottish Exchequer of date 1585 laid down that "thirteen acres extendis and sall extend to ane oxgait of land and four oxgait extendis and sall extend to ane pund laud of old extent" (76).

In the west, where Norse measures had been introduced, a constant relationship between the merkland and the ounceland cannot be ascertained, a fact which is easily explained if we remember that the ounce was a flat rate applied to each townland or bally, whereas the merkland was arrived at as a result of a careful computation of the agricultural production of this unit. Hence we find that when ouncelands came to be assessed as merklands the result varied from locality to locality according to the value of the land of the ounceland. A few examples of this variation may be given:—

- (1) In the charter to Mackay of Ugadale in Kintyre noted above the two *schanmarks* were stated to comprise 4 pennylands which are mentioned by name. The ounceland of 20 pennylands had thus been assessed at 10 merks or as a 10 merkland (77).
- (2) A Tiree rental of date 1662 shows that in that island the *tirung* or ounceland had been valued as a 6 merkland (78).
- (3) In the Mull charter of 1588 to Maclean of Dowart noted at the beginning of this paper we were told that the 56 penny and three farthing lands of Ross of Mull were equal to a thirty merkland. This is practically equivalent to a valuation of the ounceland at 10 merks as in the case of the Kintyre grant (79).
- (4) In the case of Islay the Norse denominations were never introduced, but the Crown rental of 1507 shows quite clearly that the *ceathramh* or quarter of the townland had been assessed at 33s. 4d., and therefore the whole townland (or ounceland in other localities) at 133s. 4d. or a 10 merkland (80).
- (5) In 1509 King James IV granted to John MacKenzie of Kintail a 40 markland comprising 10 davachs. Here the davach had been assessed as a 4 merkland only (81). This appears also to have been the usual valuation of the davach in Lochalsh.
- (6) In 1508 King James IV granted to Kenneth Willyamson the lands of the *terunga* of Kilmertin and half the *terunga* of Baronesmor in Trouternes (Skye) . . . of the old extent of 6 marks. Here $1\frac{1}{2}$ terungas equal 6 merks. Therefore the *terunga* or ounceland was assessed as a 4 merkland (82).

Hence we see that the ancient Celtic townland, bally, or davach, later called the ounceland or *terunga*, was valued at a varying number of merks in different localities from 4 merks upwards, but that the valuation of 10 merks was common in the West Highlands.

A good deal of the "perplexity" attaching to this subject can be avoided

if we realize that the merkland extents found in rentals and charters have their origin in the original valuation imposed on the townland, davach, or ounce-land, and came about by the division of this original figure into the various fractions—halves, quarters, etc. A few such examples may be worth considering:—

- (1) When the townland or ounce-land was assessed as a 10 merkland, that is as a 133s. 4d. land, then dividing successively by two we obtain the extents 66s. 8d., 33s. 4d., 16s. 8d., 8s. 4d., 4s. 2d., and 2s. 1d., which are of frequent occurrence in West of Scotland rentals. Thus in Islay the *ccathramh* or quarter became 33s. 4d. land, the *ochdamh* or eighth 16s. 8d. land, the *leorthas* 8s. 4d. land, the *cota-ban* 4s. 2d., and the *da-sgilling* 2s. 1d. land. As the extent of 4s. 2d. Scots was for practical purposes equal in the eighteenth century to the English *groat* of 4 sterling pence, this extent of land became known as the *groat-land* and as such occurs in West Highland eighteenth century rentals. The smallest extent of 2s. 1d. was approximately equal to two Scots shillings, hence the original Gaelic name *da-sgillin*. As, however, the Scots shilling became in time the equal of the English penny this became known as a *twopenny land*. The Gaelic word *sgillin* now means a penny. Here, however, it is necessary to point out that a twopenny land as defined above was something quite different to the Norse Twopenny land. The latter was the land corresponding to the $\frac{2}{20}$ part of the ounce-land, whereas the twopenny land of the merkland scale was simply land worth two pence. The Norse Twopenny land was worth $\frac{2}{20}$ or $\frac{1}{10}$ of whatever the ounce-land had been rented at.
- (2) When the original assessment was at 12 or 6 merks we get extents of 3, $1\frac{1}{2}$, and $\frac{3}{4}$ merklands for the fractions: in other words, 40s., 20s. or pound land, and 10s. land.

It may be of some convenience if we give in tabular form the commonest extents found in rentals and charters. They are as follows:—

A 20	merkland	was	266s. 8d.	or	£13 6s. 8d.	land.
.. 15	..	..	200s.	..	£10	..
.. 12	..	..	160s.	..	£8	..
.. 10	..	..	133s. 4d.	..	£6 13s. 4d.	..
.. 8	..	..	106s. 8d.	..	£5 6s. 8d.	..
.. $7\frac{1}{2}$	..	..	100s.	..	£5	..
.. 6	..	..	80s.	..	£4	..
.. 5	..	..	66s. 8d.	..	£3 6s. 8d.	..
.. 4	..	..	53s. 4d.	..	£2 13s. 4d.	..

A	3	merkland	was	40s.	or	£2	land.
..	$2\frac{1}{2}$	..	..	33s. 4d.	..	£1 13s. 4d.	..
..	2	..	..	26s. 8d.	..	£1 6s. 8d.	..
..	$1\frac{1}{2}$	..	..	20s.	..	£1	..
..	1	..	..	13s. 4d.	land.		
..	$\frac{1}{2}$	..	..	6s. 8d.	..		
..	$\frac{1}{4}$	..	..	3s. 4d.	..		

The greatest of these extents are found but rarely, although they occur in some West Highland rentals as large tacksmen's holdings. Thus in the Islay Crown Rental of 1507 out of 79 separate holdings 2 were 20 merklands, 2 were 10 merklands, and 6 were 5 merklands. This rental, from the extents which it contained, appears to show that the lands of Islay were assessed in merks at a uniform rate of 10 merks the townland or bally. In the case of the Kintyre Crown Rental of 1505, on the other hand, extents of 8, 5, 4, 3, and 1 merklands are found and indicate that the original assessment was not at a uniform rate for each townland.

In addition to the above extents we occasionally find others not included in the above list which are the result of combining together two holdings of some of the above extents or of dividing up a single one of the above into certain proportions. Thus if two farms of the extent of 33s. 4d. and 16s. 8d. were combined to form a new farm its extent would be a 50s. land. This extent occurs fairly frequently. If later the combined holding was halved the result would be two holdings of the extent of 25s. each, and this also occurs in rentals.

To illustrate the effect of division we give an actual example from Bute. In the year 1513 Gilcrest Macmorich of Achamor granted to James Stewart the 22s. $2\frac{1}{3}$ d. lands of Beallelon, and in 1519 the same Gilcrest granted to the said James the 11s. $1\frac{1}{3}$ d. lands of Achamor. We notice that the extent of the first grant is double that of the second, and that if the two are added together they come to a 33s. 4d. land or a $2\frac{1}{2}$ merkland, and we actually find that in 1554 John Stewart of Ballelone and Achamore in Bute sold to James Stewart, Sheriff of Bute and Arane, the lands of Ballelone and Achamore in Bute "of the old extent of 33s. 4d." Whence it would appear that the original estate had been for a time divided in the ratio 2 : 1 (83). Other extents occurring in the rentals can usually be explained in the same way: some that refuse to conform to any rule are probably the result of mistakes on the part of clerks. Such mistakes are not infrequent and a watch has to be kept for them. As an example I give the following. In a charter of King James IV of date 1507, which erected the lands of the Abbey of Saddell into a temporary lordship, one of the individual holdings is described as twelve *unciales* of land. This, in the locality mentioned, must have been somewhere in the neighbourhood of 100 merklands. Yet in a

subsequent charter all the lands of the Abbey are described as a 48 merkland only and the particular holding is listed as an 8s. land of old extent, and still later as an 8s. 4d. land. Somebody had apparently written twelve instead of twelfth. This is the only use of the unciale that I know of in Kintyre charters and its appearance at this late date is due to copying from a more ancient charter.

Another source of confusion is the omission of the fractions of the shilling in merkland extents. Thus in the case of the Islay denominations of the *ceathramh*, *ochdamh*, etc., Macdonald gives the corresponding merkland scale as 32s., 16s., 8s., 4s., and 2s. land, perhaps basing the scale on the groat of 4s. Scots or 4 pence Sterling. An examination of Islay rentals, however, shows that the true scale was 33s. 4d., 16s. 8d., 8s. 4d., 4s. 2d., and 2s. 1d., resulting from the fact that the original assessment was at 10 merks the bally or ounce-land, as previously explained. The use of false scales must have been due to the fact that scribes and others did not know the true history and meaning of the figures which they were copying, and a knowledge of these enables the modern reader to detect the mistakes made by them and trace them to their source.

It is necessary to point out that neither the pennyland nor the merkland were exact areas of land, but we can obtain some idea of what the original merkland of Alexander III's time must have been by considering the prices of agricultural produce as given in the *Exchequer Rolls* of 1264-66. From these it would appear that the rent of a merkland in those days was the equivalent of *any one* of the following:—

16 bolls of oatmeal,
20 bolls of malt,
26 stones of cheese,
4 cows,
16 sheep,
6 to 8 pigs,

and the minimum stipend of a thirteenth century vicar was ten times this amount, having been fixed at 10 marks early in the century.

Before leaving the merkland it may be as well to note that the definition of it given above does not apply to Orkney. There the merkland was the capital value of the pennyland, *i.e.* what the latter would fetch when sold. The Orkney denominations differ radically from those of the rest of Scotland and except for an incidental reference are excluded from this survey. Readers who are interested in them may be referred to Capt. Thomas's paper "What is a Pennyland?" already referred to, and to two papers by J. Storer Clouston entitled the "Townlands of Orkney" and "The Orkney Pennylands" in volumes xvii. and xx. of the *Scottish Historical Review*.

VARIATION IN THE VALUE OF THE MERKLAND—OLD AND NEW EXTENT.

The merkland we have defined as a piece of land originally valued at a rent of one merk or 13 shillings and 4 pence per annum. If, however, we examine later rentals, say those of the seventeenth century, we will find that lands therein denominated as merklands are paying rents as high as £70 or £80 Scots, or even in some cases higher, that is one hundred times as high as the original valuation of 13s. 4d. Clearly it is of importance, from the point of view of economic history, that we should be able to form some idea of how such increases came about.

The value of land is, of course, measured by the rent which it can pay, and clearly therefore land values must have originated from the first time that the relationship of owner and tenant became established. In early times in Scotland all rents were paid in kind, and the institution of money rents must have had its origin, as we have already shown, in the introduction before 1153 of the Knight's Fee, which was valued at £20 or 30 merks. Another cause which doubtlessly helped to familiarise the idea of money denominations for land was introduced as early as the reign of King William the Lion, when lands were taxed to provide grants-in-aid for the king. Before this, in the West Highlands, the money denominations of the ounce-land and pennyland had been introduced, also as a result of taxes paid to an overlord. There, however, as we have shown, the imposition took the form of a simple house tax or flat rate, and no detailed valuation of the lands was required to be made.

In the case of the taxations of William the Lion's reign, the sum of 10,000 merks was raised on two separate occasions, and this must have been apportioned out on the various estates according to their agricultural production. This, as Thomas Thomson pointed out, made it necessary to conduct an inquiry into the productive capacity of the land and to assess this in the currency of the period.

Exactly when and how this valuation was first made we cannot be quite certain, but it may have been as early as 1189 when the first grant-in-aid to William was made. It may have been this, or some other early valuation, that existed in the reign of King Alexander III (1249–1286) and which is often referred to as the *Old Extent*. The editors of the first volume of the *Exchequer Rolls* define it as follows: "The old extent may be defined as a valuation of the whole temporal lands of the country, which in the time of Alexander III was preserved among the muniments of the Crown and continued to be appealed to in subsequent reigns as the basis of territorial imposts. It was probably the result of separate assizes held from time to time by sheriffs and other officers of the Crown: and how old it may be in some cases it is difficult to conjecture. As far back as 1189 an aid was granted to William the Lion to enable him to pay to Richard I the 10,000

marks by which he was freed from captivity, and a farther aid of 10,000 marks was granted to the same king by the barons and burghs in 1211. There must have been valuations coeval with these aids; and the old extent may in many cases be based on an inquest as early as one or other of these dates" (84). Whether this is a true definition of the phrase "old extent" or not need not concern us too much in this inquiry. It is sufficient to point out that from the death of Alexander III we begin to find references to a change in the rental value of temporal lands.

Alexander's reign was, as is well known, one of great prosperity, and as a result land values had risen and had exceeded their original valuation or extent. This is proved by the fact that the Church, ever alive to its rights, had appointed Bagimont in the year 1275 to prepare a new valuation of the spiritual lands, and this was adopted in spite of much opposition by the clergy (85). This prosperous state of affairs was, however, rudely interrupted by the untimely death of the king in 1286 which ended the era of Scottish prosperity. The destruction of the Wars of Independence supervened and soon, apparently very soon,

"Oure Gold was changyd in-to Lede."

As early after Alexander's death as the year 1288 we read of lands in Dumfries *que jacent inculta propter guerram motam post mortem regis per duos annos* (86).

In the accounts of the Earl of Fife for 1289 we read in the *Erchequer Rolls* for that year that in the case of the Manor of Dull the return was made "*per extentam factam post mortem regis per preceptum custodum*," which is the first instance we have encountered of a new extent of temporal lands.

In the case of a retour of the lands of Riccardton, near Edinburgh, of date 1303-4, we are told that the estate *valuit tempore pacis in omnibus exitibus per annum X libras et nunc valet XX solidos*. And this case is cited by Thomas Thomson as the first instance on record of the necessity of making two returns—an old and a new (87).

Again, when in the year 1327 the Scottish Parliament made a grant to King Robert the Bruce, for his life, of the annual tenth-penny from all farms and rents, the taxation was ordained to be made *juncta antiquam extentam terrarum et reddituum tempore bone memorie domini Alexandri . . . ultimo defuncti . . . excepta tantummodo destructione guerre* (88). The phrasing would appear to indicate that there had been a general and well-recognised valuation of lands during Alexander's reign.

With reference to the West Highlands, it may be pointed out that in the islands no such valuation could have been made before the year 1266, in which these islands were handed over to the King of Scotland by the King of Norway. On the mainland the possessions of the Norse had fallen

into the hands of the Scottish kings at an earlier date, and after the expedition to Argyll of King Alexander II in 1222 Angus Mor, Lord of Kintyre, had accepted the sovereignty of the Scottish king for his mainland possessions, and about the year 1250 had bestowed on the Abbey of Paisley the church of Kilkerran in Kintyre "for the weal of the soul of my lord King Alexander" (89). We may therefore ascribe the introduction of the merkland into these parts to some date between 1222 and 1264, in which latter year the Crown was drawing rents from Kintyre. In that district we find that the merkland, by 1505, had entirely superseded the Norse denominations which we know from the place-names had at one time been in use (90).

We thus see that if the original valuation of the lands of Scotland in currency (pounds or merks) was made as far back as William the Lion's reign the actual value—*verus valor*—of these lands in Alexander III's reign would exceed this value, and that while the Church introduced a new valuation in 1275 of the spiritual lands, that of the temporal lands apparently remained unchanged. After Alexander III's death, however, a serious deterioration of the land began, so that the old extent of Alexander's reign greatly exceeded the present value, and in the year 1366 a table of old and new extents in the *Acts of the Parliament of Scotland* shows that in most cases the old extent was about double the present extent or *verus valor*.

From the early years of the fifteenth century, however, a change in the opposite direction began to take place and gradually, as we have pointed out in the opening paragraph of this section, the present value measured in money began to exceed the old extent until by the end of the seventeenth century it exceeded it by more than a hundred times. Professor Rait traces this change to about the year 1424 (91). It is well exhibited in a series of West Highland (Kintyre) rentals studied by the present writer, beginning with the Crown Rental of 1505, in each of which the old extent and the present rental are clearly shown. The rents in 1505 were paid partly in money and partly in produce such as oatmeal, malt, cheese, marts, sheep, and swine. In addition the old Celtic due of *cuddeich* (from the Gaelic *cuid-oidhche* or "night's portion"), that is the entertainment allowance or refecton of the chiefs, was also taken, but in most cases compounded for a money payment, and "services used and wont" were required to be given in many, but not in all cases. A peculiarity of these Kintyre rents of 1505 was that the old extent was paid in money and the surplus in produce, as the two following examples will show:—

- (1) "Carnemor iij marcate terre, proficium inde iij marcas monete tria pondera casei magni lapidis et mutonem cayn."
- (2) "Mongastill et Balloch, viij marcate terrarum, proficium inde octo marcas monete octo pondera casei magni lapidis le cane scilicet porco" (92).

In the first holding 3 merks and in the second 8 merks would appear to be the "old extents," but how old cannot be said as there are no previous records of these lands. The total rent of each holding, measured in merks, varies much from holding to holding, being in some cases as low as 13s. 4d. and in others as high as £2. I am inclined to doubt whether these rents represent the *verus valor* at the time. They have the appearance of being favoured rents, the tenants paying only the old extent plus a small extra amount as *cain*. In the corresponding Crown Rental of Islay for 1507 the old extent only was taken, although at this date the true value must have been greater. In 1541 a new assedation of Kintyre lands was made by the Crown, and the average value of the merkland at that date was about £2 3s. (93). A century later, in 1652, it had risen to between £25 and £30 (94), and by the end of the same century was as high as £70 to £80 (95). Similar evidence for Skye has been produced by the late Canon Macleod based on rentals in the Dunvegan archives (96). In the case of Ayrshire we find recorded in the estate of the Mures of Caldwell an 8s. 4d. land of old extent paying in the year 1712 £84 of rent, which works out at about £134 the merkland (97).

The causes of this rise in the merkland rental were manifold, but to begin with an important one was the great depreciation which took place in the Scottish currency beginning in the reign of King David II. In the year 1367 ten pennyweights were deducted from the pound of silver, and it was ordained that out of the remainder 352 pence were to be coined. The new currency thus came in time to be so reduced in value that the pound was only equal to the former merk. "From this time," says Robertson, "the assessment of land seems to have ceased to correspond with the agricultural measurement [that is with the ploughgate] and to have been much in accordance with the actual value of property in the currency of the time, as had been the case for some time previously in England. The merkland makes its appearance, perhaps because in Scotland, as well as on the Continent, as soon as the current pound ceased to correspond with the standard of weight it was replaced by the marc" (98). We have, however, given instances of the use of the merkland in Scotland before the date we are now considering (1366), but it cannot be denied that its frequent use in the charters as a land denomination does not occur before the fifteenth century.

The deterioration which took place in the Scottish currency during the 500 years 1100 to 1600 is exhibited in the following table taken from Cochran-Patrick's *Records of the Coinage of Scotland* (99):—

OF THE VALUES OF THE SCOTTISH OUNCE OF SILVER.

In 1150 it was coined into	21	pennies.
.. 1320	22.05	..
.. 1385	24.64	..

In 1393 it was coined into	44	pennies.
.. 1410	64	..
.. 1451	96	..
.. 1483	140	..
.. 1542	237	..
.. 1565	360	..
.. 1582	444	..
.. 1598	640	..
.. 1601	720	..

So that even if no other causes were at work a merkland of old extent (*i.e.* assessed as such before Alexander III's reign) would be equal to 13s. 4d. \times 36 or £24 Scots in 1601.

Other causes, however, must have been at work to account for some of the increases greater than this amount. We may leave out of account what would nowadays be called technical improvements in agriculture such as the introduction of new staples, the improvement of implements, and the use of manures and rotations of crops, for perhaps with the exception of the use of *lime* these did not come into being until the middle of the eighteenth century when what may be called the agricultural revolution began. Some holdings, however, would be improved by the intake of more arable land from the waste, probably as a result of a greater demand for agricultural produce from the populations of the gradually rising burghs and towns all over the country. Towards the end of the seventeenth century, especially in the Highlands, the old turbulent life began to decay and more attention began to be given to the arts of peace. To such causes must be ascribed any increase in the value of the merkland over and above that which can fairly be ascribed to depreciation of the currency.

It is clear that at a very early stage (as early as the sixteenth century) the merkland ceased to be an absolute measure of the value of land and that, owing to discrepancies between the production of different holdings, it later ceased to have any value even as a relative measure. After the middle of the eighteenth century it began to be abandoned when estates were surveyed and measured in acres. In a rental of the Earl of Morton's Lothian estates dated 1780 there is no mention of merklands nor any of acres, but the estate agent has supplied as an appendix a set of instructions for the dividing up of each of the farms into separate fields, so that it is clear that the survey in acres must have taken place at a later date (100). In the West the Duke of Argyll, at about the same date, employed his own surveyors to measure the farms in acres. The Earl of Breadalbane had his Lochtayside estate surveyed in 1769 (101). The merkland thus passed out of existence and is now forgotten except by antiquarians.

The ploughgate, standardised at 104 Scots acres, was ordained by the Exchequer in 1585 to be the equivalent of a 40-shilling land of old extent.

This is a 3 merkland and so the merkland would on this basis amount to $34\frac{2}{3}$ acres. It should be clearly understood, however, that this equation was only decided on as an administrative expediency, and it would be quite erroneous to suppose that the area of any holding expressed in merklands could, before the land had been surveyed, be obtained in acres by multiplying them by $34\frac{2}{3}$. "Any attempt to estimate its area in acres," says Robertson, "might be more ingenious than satisfactory" (102).

At the end of the eighteenth century in the West Highlands it appears to have been a one-plough farm. In the old *Statistical Account* of the parish of Saddell, Kintyre, we read: "The denomination (merkland) is now of little consequence being neither uniform nor universal. I know nothing regulated by it except perhaps cess, teinds, and some other public burdens. The rent is fixed by a surer rule, the number of bolls sowing, and souns of cattle of all kinds it will maintain. One cow makes a soun, a horse two, ten sheep (and in some places fewer) are considered as a soun . . . the average flock of a merkland is 4 horses, 12 milk cows, with their followers, and 40 sheep with theirs. The average sowing is 15 bolls oats, 1 boll bear, and 4 bolls of potatoes" (103). As the old Scottish plough was drawn by four horses, the merkland holding as defined above could not have been greater than what was called in the West Highlands a four-horse ploughgang or single plough farm.

MISCELLANEOUS.

The following are some oddities which are interesting as reminders of our ancient agriculture and which must have been in common use in days gone by although now almost forgotten.

Cowlands or *vaccates* of land were among the perplexities listed by Gregory, and occur in the charter of lands to Maclean of Dowart dated 1588. In that charter they referred to holdings in Islay, and I have not come across them in any other locality than that island which, as has already been pointed out, retained ancient usages connected with the land down to quite modern times. In the year 1506 King James IV granted to John Makkane [MacIain] of Ardnamurchan a *quarter* of the lands of Baletharsauche, an *eighth* of Teiremachacan, and 6 *vaccates* of land in Pragayg in the island of Islay (104). In Maclean's grant of 1588 there were included the following holdings in Islay:—

- (1) Sorne—seven and a half *cowlands*, of which the rent was £2 13s. 8d.
- (2) Skeag and Lewres—two and a half *cowlands*, of which the rent was 12s.

These figures give an average rent for the individual *cowland* of about 6s. Scots. In the same rental we are informed that the *ceathramh* or *quarter*

was rented at £5, so that the rental value of a cowland in Islay in 1588 was about $\frac{1}{16}$ that of the *ceathramh*. The old extent of the *ceathramh* in Islay was 33s. 4d., so we may conclude that the old extent of the *cowland* or *vaccate* was between 2 and 3 shillings. Now in 1264 the Earl of Mar, Comptroller of Scotland, ordered 20 cows of the value of 60 shillings to be paid out of the Crown rents of Kintyre to the people of Galloway on account of defect of victuals in the latter locality. This shows that the average price of a West Highland cow in 1264 was 3 shillings, which is near enough our estimated old extent of a *cowland* to warrant the conclusion that this was a piece of land which paid a rent of one cow or its equivalent in money per annum. Here we have an echo of the days when rents were largely paid in cattle, and the tribute to an overlord was one cow in every ten or its equivalent in money, known as *cornage* or *nout-geld*. This definition must be clearly distinguished from that of the *cowgait*, which was pasturage for one cow on a common grazing. The *cowland* is also found in ancient Ireland. W. F. Skene, in his description of the ancient tribal system in Ireland, states that "the land required for the support of seven cows was called a *Cowland*, and he [the ogaire or tenant] left one cow at the end of the year in payment of it." Many of our old Scottish customs, as in this case, are traceable to Irish origins, and go back to Dalriadic times.

A *cowsworth* or *kowsworth* of land was an Orkney term which seems to have been originally the equivalent of the above *cowland* or *vaccate*. Thomas gives its meaning as from the Norse *kýrverð*, and the old Orkney rentals show it to have been a very small holding or measure of land, but not a fixed fraction of the pennyland. In one case occurring in the Orkney rentals of 1739 there were ten *kowsworth* of land in one pennyland. In another there were 32 *kowsworth* in a pennyland. This discrepancy is due to the fact which we have pointed to in the case of the merkland, viz. that while the pennyland was a fixed fraction of the ancient Celtic townland (an $\frac{1}{18}$ th in Orkney and a $\frac{1}{20}$ th in the southern Hebrides and West Highlands) both the *cowsworth* and the *merkland* were based on the agricultural production, which would vary in value from one pennyland to another. Thomas states that "to this day in Iceland land is virtually though not nominally reckoned by the *coursworth*, for land valued, say at 10 hundreds is worth 10 cows," and he stresses the fact that it was a very small holding which paid a rent equal only to the value of a sheep (105). At a time when cattle were the principal medium of exchange and when rents and tributes, as well as the *cro* or blood fines were expressed in terms of so many cows, the value of a single cow would become a natural unit of land values just as the merk became in later times. In Argyllshire and other parts of the West Highlands the cow was used as a standard of value for other stock. Thus in the *Register of Testaments* for 1686 we read of one inventory which

included "eight great cows . . . and four *cows' worth* of sheep and goats," and in another there was included "two *cows' worth* of sheep."

Some of the old terms used have reference to the days when agricultural arable practice was very different to that of to-day. It was not until the middle or even the end of the eighteenth century that fences, hedges, and, above all, underground drainage made their appearance. Before that any drainage that was effected was by means of open ditches and of such surface run-off as was made possible by means of the *rig* and *furrow* arrangement of the old ploughing system. The division of the land into *rigs* and furrows was one that was natural to this system without any reference to the ulterior object of drainage because wherever a break or "feer," as it was called, was made by the plough a deep furrow was left, and between these furrows the land was raised up in *rigs*. Good specimens of the old eighteenth century high rigs and deep furrows can still be seen in many parts of Scotland, notably on the higher ground near the Pentland Hills at Harperig Reservoir. The *rigs* are often uneven in breadth and wind and twist in a curious serpentine manner which was obviously according to a definite plan or design. In the case of a very large open field where the land was not all of the same slope it was necessary to align some of the rigs in one direction and some in another. The field thus became divided up into groups of rigs, which must have been well-known local landmarks, and which would serve to some extent as local measures of land. In some localities each such group of rigs was called a *shethland* or *sheathland*, *sheth* being an old word used to denote a parallel or gridiron arrangement. Examples are as follows: In a charter to the monks of Melrose we read of "sixteen acres of land lyand together in the samyn *scheth* of land west fra the said saynte mary rig." The *English Dialect Dictionary* defines *sheath* as "A division of a field. A portion of a field which is divided so as to drain off the water by the direction of the ploughings called *sheths* (north country)." In this definition the word *sheth* would appear to refer to and be synonymous with, the individual rig, while the *shethland* was the group of rigs or *sheths* all of which were aligned in the same direction.

The *schaifeland* or *sheafland*, latinised to *garbata*, from *garba*, a sheaf, may be a form of *shethland*. The following are examples of its use:—

- (1) In 1615 Arthur Sutherland was served heir to his father Alexander Sutherland of Inschefure in three oxgangs and a *sheaf* (*garbata*) of land, commonly called the "thrie oxgang and *schaifeland*" of the town and lands of Culkenzie in the barony of Delny and earldom of Ross.
- (2) In 1635 Iver McIver of Culkenzie was served heir to his father Iver McIver of Lackmaline, portioner of Culkenzie, in 10 *sheaves* and a half of the town and dauchland of Culkenzie, commonly

called ten "scheaffis and ane half scheafland" in the barony of Delny, then newly erected (106).

I do not find the word *sheafland* in any of the dictionaries. Three oxgangs amounted to 39 acres, as the single oxgang was 13 acres. Presumably the sheafland was less than the oxgang, and the word may be used here as the equivalent of *rig*.

Rigs and *butts* are found in the charter record functioning as rough measures of land. Doubtlessly the land of the ancient townland, although not measured in the modern sense of the word, would have its boundaries accurately fixed, and to local people the agricultural value of its various parts, down to the smallest—the *rig*—would be well known. Such knowledge, however, would be local and only of use for comparing different pieces of land in one and the same locality. Examples of the use of the *rig* as a rough measure of land are as follows:—

- (1) In the year 1250 Maurice, the official of the Bishop of Argyll and perpetual vicar of the church of Kilfinan, gave possession of that church to the monks of Paisley, saving among other things the pasture of twelve cows and forty *rigs* (sulcis) belonging to the vicarage (107).
- (2) In 1584 King James VI confirmed a grant to Donald Ros Henderson and his heirs of lands near Tain, which grant included two *rigs* of land extending to the sowing of six pecks of bear—one *rig* of land extending to the sowing of one peck of bear lying at the west end of the towne of Tayne and a considerable number more of *rigs* with their sowing. The seed rate having been specified with each *rig* would make its value as a measure of land much more accurate.

Butts were short rigs which occurred in fields that tapered off to an angle in one corner, and the word is used in the sense of a truncated rig or stump. Examples are:

- (1) In the Tain grant of 1584 above specified we find "one croft of land called Croftmatak containing seven *buttis* extending to the sowing of two firlots of bear or thereby . . . the *Buttis* extending to the sowing of three pecks" (108).
- (2) In a rental of the Earl of Morton's estate of the date 1782 we find "three acres taken off the east end of the Gogar *Butts*," which were to be added to another farm (109).

It is necessary to distinguish this use of the word from the usual meaning which it possesses of a place where archery was practised. Jamieson's *Dictionary* gives one meaning as above—"a piece of ground which in ploughing does not form a proper ridge but is excluded at an angle." He gives,

however, another and somewhat different meaning. "It seems also," he says, "to be used for a small piece of ground disjoined in whatever manner from the adjacent lands. In this sense a small parcel of land is often called the *butts*."

An *ottum* or *ottom* of land is defined in the *English Dialect Dictionary* as a piece of land which was "a portion of the outfield or pasture land newly put under cultivation." The root is probably the old Norse *aptr*, meaning "once again." Jacobsen's *Dictionary of the Norn Language of Shetland* gives the following: *Ottafield*, *ottafild*—a field in the second year of cultivation after lying fallow. In the old system of agriculture the arable land of a farm was divided into (1) *infield* or *croft*, which consisted of the best land contiguous to the steading—it was all cultivated yearly and received all the manure and the most careful cultivation, and (2) the *outfield*, consisting of the poorer and more distant land of the holding; only a small fraction of this was cultivated in any year, the rest being reserved for grazing. The outfield break received no manure and was cropped with oats or bear for several years until the land was exhausted, when it was abandoned and a new break of the outfield made. These outfield breaks, especially in the second year, were apparently the *ottums* found in the charter record, some examples of which are as follows:—

- (1) In the year 1557 Robert Bishop of Caithness granted to John Earl of Sutherland lands which included "the 3 *lie ottummis* of land in Myrelandnorne . . . the mill of Wyndeles 12 bolls of victual at 8s. 4d., in all £5 Scots; the 3 *lie ottummis* 6d." (110).
- (2) The *Dialect Dictionary* gives the words *ottomall* and *ottomail* as derived from the above, the suffix being presumably *mail* or rent.

The *pateland* is defined by the *English Dictionary* as a piece of land dug or turned over at one time by the joint effort of the workers. It is rare in the records, but the following is an example: In 1568 Walter, abbot of Kinloss and prior of Bewlie, leased for 19 years to John Clerk in Bewlie, etc., the eighteenth part of the town and lands of Reyndoun in the barony and priory of Bewlie and sheriffdom of Inverness, with the *pateland* called John Clerk's land, etc., . . . the grantees paying yearly for Reyndoun 12s. 6d. Scots, 2 bolls 2 pecks of ferme, one firloft of oats, one fourth of a mart, three fourths of a mutton, 6 poultry, one kid, and 24 eggs valued at a penny: and for the *pateland* called John Clerk's land £4 Scots, a dozen of poultry, one — to the water and a hook (a reaper) in harvest, extending in all to £4 12s. 6d. (111).

A *dalwork* of meadow is found in the *Reports of the Parishes*, 1627, in which year the stipend of the Vicar of Urr in Kirkeudbright comprised "ane manss and nyne or ten aikeris of kirkland with ane *dalwork* of meadow." The etymology is not very clear. The *Oxford English Dictionary* gives *dale*

equal to a portion of an undivided field. Jamieson also gives *dail*, a field. Jamieson, however, gives also *daywerk* as having meant the result of the labour or work of a day shortened to *darg* and used redundantly in *day's darg*. The *English Dialect Dictionary* gives *daywork*: a measure of land; three roods of land. This is likely to have been the origin of *dalwork*, the "l" being intrusive (112).

Scots Gardener's Measure.—An inquiry concerning this measure was received at H.M. Register House some years ago from a firm of solicitors in Fife. The land in question was described as "32 roods of ground or thereby of Scots Superficial Gardener Measure, lying in the Town of Torrie and Parish and Barony thereof and Shire of Fife." The *Gardener's Rood* was identified as being the equivalent of the old Scots burgh rood which, according to *Fragmenta Collecta* (vol. i. p. 751. of the Acts of Parliament), was 20 (linear) feet of an average man. If this is squared and multiplied by 32 the equivalent of the 32 roods gardener measure is found to be 47 poles imperial measure, and when the plot at Torrie was surveyed it was found to be almost exactly this area. The measure appears to be peculiar to the County of Fife (113).

A *shott* of land was a plot or field. Jamieson gives as an example: "the infield is divided into three *shotts* or parts much about eighteen acres in all." It is supposed to be from Anglo-Saxon *sciat*, a nook or corner. It gives rise to the place-name *Shotts* in Lanarkshire (114).

Finally one or two terms relating to ecclesiastical land may be noticed. An *ibert* was a piece of land mortified to the Church as in the following example: "unacum mansione ejusdem et *tribus ibertis* terrarum eidem pertinentibus." It is from Gaelic *iobairt*, an offering or sacrifice. Watson records *Ibert* as a place-name in Perthshire, Stirling, and Dumbarton (115).

From Latin *offerendum*, an offering, which gave rise to the Gaelic *aifreann*, the Mass, is also derived the words *offers*, *offeris*, *offerances*, which have the same signification as *ibert* mentioned above, viz. a grant of land for religious purposes. Watson gives examples as follows: "*le offeris* of Lanark" in Perthshire (1507); "the tenandry of Nether Dischowe called *offeris* lying near the Church of Kippane" (1508). He remarks that this was probably the old glebe of Kippen.

Gaelic *earann*, a portion, is found in the Menteith names Arneleirich, Arnvicar, Arnprior, meaning portion of the clerk, the vicar, and the prior respectively. This word was also applied to secular land and in the same locality we find Arngibbon, or smith's portion, the name of an estate belonging to the Forrester family (116).

There is no evidence, however, that any of the above three terms denoted a measure of land in the strict sense of the word.

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- (69) *Excheq. Rolls*, vol. i. pp. 1 to 51 (Sheriffs' Accounts).
- (70) *Excheq. Rolls*, vol. i. p. 51.
- (71) *Calendar of Documents Relating to Scotland* (Bain), vol. i. pp. 33, 290, 327, 338.
- (72) *Act. Parl. Scot.*, vol. i. p. 121.
- (73) *Orig. Par. Scot.*, vol. i., App., p. 504.
- (74) *Reg. Mag. Sig.*, vol. i., App. No. 99.
- (75) *Excheq. Rolls*, vol. i., Introd., p. lxxxix.
- (76) *Legal Antiquities* (Innes), p. 283.
- (77) *Loc. cit.*, *supra*.
- (78) *Scot. Hist. Review*, ix. p. 343 (Duke of Argyll).
- (79) *Collect. de Rebus. Alb.* (Iona Club), pp. 161 *et seq.*
- (80) *Excheq. Rolls*, vol. xii. p. 588.
- (81) *Orig. Par. Scot.*, vol. ii. p. 392.
- (82) *Orig. Par. Scot.*, vol. ii. p. 352.
- (83) *Orig. Par. Scot.*, vol. ii. p. 231.
- (84) *Excheq. Rolls*, vol. i. (Introd.) pp. lxxxix *et seq.*
- (85) *Miscellany*, Scot. Hist. Soc., vol. vi. (1938-39).
- (86) *Excheq. Rolls*, vol. i. p. 35.
- (87) *Court of Session Cases*, May 1818.
- (88) *Act. Parl. Scot.*, vol. i. p. 121.
- (89) *Reg. de. Passelet* (Maitland Club), pp. 127, 128.
- (90) *Excheq. Rolls*, vol. xii. pp. 698 *et seq.*
- (91) *Parliaments of Scotland* (R. S. Raitt), p. 491.
- (92) *Excheq. Rolls*, vol. xii. pp. 698 *et seq.*
- (93) *Excheq. Rolls*, vol. xvii. (Kintyre Rental of 1541).
- (94) MS. Accounts of Regality of Argyll, H.M. Reg. House.

- (95) MS. Rental of the Earl of Argyll (1678). Nat. Lib. Scot., Acc. No. 1274.
- (96) *Island Clans during Six Centuries* (MacLeod), p. 138.
- (97) *Caldwell Papers* (Maitland Club), vol. i., pt. i., p. 303.
- (98) *Historical Essays* (Robertson), p. 141.
- (99) *Records of the Coinage of Scotland* (Cochran-Patrick), p. lxxvi.
- (100) Morton Papers, H.M. Reg. House.
- (101) *Survey of Lochayside* (M. M. McArthur), Scot. Hist. Soc. (1935-36).
- (102) *Historical Essays* (Robertson), p. 141.
- (103) *Old Statistical Account of Saddell, Kintyre*, vol. xii, p. 477.
- (104) *Reg. Mag. Sig.*, vol. ii, p. 639.
- (105) Thomas, *op. cit.*: *Documents relating to the Bishopric of Orkney* (Peterkin).
- (106) *Orig. Par. Scot.*, vol. ii, p. 470.
- (107) *Orig. Par. Scot.*, vol. ii, p. 49.
- (108) *Orig. Par. Scot.*, vol. ii, pp. 424, 425.
- (109) Morton Papers, H.M. Reg. House.
- (110) *Orig. Par. Scot.*, vol. ii, p. 610.
- (111) *Orig. Par. Scot.*, vol. ii, p. 512.
- (112) *Reports of Parishes* (1627), Maitland Club.
- (113) Information kindly supplied by Wm. Angus, Esq., Keeper of the Registers and Records of Scotland.
- (114) *Place Names of Scotland* (J. B. Johnstone).
- (115) *St Andrew's Formulare*, vol. ii, p. 14.
- (116) *Celtic Place Names of Scotland* (W. J. Watson), pp. 254 *et seq.*

V.

NOTES ON SCOTTISH INCISED SLABS (I.).

By F. A. GREENHILL, M.A.(Oxon.), F.S.A.Scot.

Read February 26, 1944.

Incised slabs form the largest class of sepulchral monuments of the Middle Ages now remaining in Scotland. They fall naturally into two main groups, corresponding to the geographical division of the country: (1) the West Highland slabs, in which Celtic influence strongly predominates; these are especially numerous in Argyllshire and the Isles; (2) what may by contrast be called the Lowland slabs, which follow the general style of contemporary monuments in Western Europe. The former are generally of mica-schist, the latter of sandstone.

The West Highland slabs have received considerable notice from antiquaries. One has only to recall the names of James Drummond, R.S.A., Captain White, and John Stuart, to realise how much has already been accomplished in this field, yet despite their invaluable work, supplemented by the contributions of others, there are still some blanks to be filled. The Lowland slabs, on the other hand, have received comparatively

little attention. A few of the best have formed the subject of articles in previous volumes of the *Proceedings*, but the greater number still remain to be dealt with.

In this and future communications I shall hope to bring to the Society's notice some of the more interesting of the slabs of both classes so far unrecorded in the *Proceedings*. In the present paper I will deal with four, all of pre-Reformation ecclesiastics. I exhibit rubbings of the three which still survive: the fourth has now disappeared.

COPPAR ANGUS (PERTHSHIRE).

1. *John Schanwel, Abbot* (1506).

This fine and well-preserved monument is mural in a wooden frame in the north-west vestibule of the parish church, which occupies part of the site of the pre-Reformation abbey. It is of brownish-coloured sand-stone, the exposed portion 2 feet $1\frac{1}{2}$ inch in breadth, with an extreme length of 6 feet $1\frac{3}{4}$ inch, and commemorates John Schanwel, who was abbot from 1480 to 1506, and a man of some note in his day (fig. 1).

The slightly lopsided effigy is placed under a fine vaulted canopy. The inscription, beginning just beneath the canopy on the sinister side, runs round the edge of the stone to end at the same level on the dexter side. Blank shields are put at the commencement and termination of this marginal strip, and a blank shield, enclosed in a quatrefoil, in each of the bottom corners. These shields may originally have been painted.

The abbot's figure is vested in alb and cope, with the special insignia of his rank, the sandals, gloves, pastoral staff, and mitre. The alb has a large oak-leaf apparel on the front of the skirt, and a plain one at the left wrist, the other four being hidden. The cope, fastened across the breast by a lozenge-shaped morse, has its edge enriched with an orphrey embroidered with alternate maces and voided ovals, which by an engraver's error is not continued right round the vestment, but stops short on the left side at a fold. The whole treatment of the cope is curious, for instead of falling straight down from the shoulders, it is draped up over the forearms in such a manner as to pull it away on the right side and trail it on the left. The gloves are of plain gauntlet type, without adornment, but the mitre is richly embroidered and studded with jewels, its fringed lappets, or infulæ, falling one on each shoulder. The slender pastoral staff has a large trefoil in the crook, and lacks the usual pointed end.

The feet have been hatched, probably to receive colour, and the same process has been applied to other parts of the design, *e.g.* the mitre, the crook of the pastoral staff, the orphrey of the cope, the apparel on the skirt of the alb, the background of the marginal inscription, and the two quatrefoils in the bottom corners, all of which were probably filled in with colouring



Fig. 1. John Schanwel, Abbot (1506).
COUPAR ANGUS (PERTSHIRE)

matter, though all sign of this has now perished. This rather suggests that the slab probably formed the top of a tomb raised above the floor level.

On the canopy is a shield, bearing the abbot's initials and a pastoral staff, linked together by a looped cord. The staff, perhaps by design, has been drawn too long for the shield, and the crook, with its trefoil adornment, protrudes above it.

The inscription—a very late example of the use of Lombardic type outside the West Highlands—is in flat relief against a slightly recessed background: at the beginning is a cross patée, at the end a tiny quatrefoil, and the words are separated by lozenge-shaped stops. It reads as follows:—

“Hic iacet venerabilis pat(er)
d(omi)n(u)s Ioh(ann)es Schanwel
quo(n)da(m) abbas de Cupro q(u)i
obiit A(m)o Do(min)i M(illesim)o
D VI ?IX K(a)l(endarum) No(vem)-
br(is).”

The combination of vestments worn by the abbot is remarkable, and calls for some comment.

The dress of the mediæval clergy falls into two main groups: (1) eucharistic vestments, worn when celebrating mass, (2) processional (sometimes called canonical) vestments, which formed a dress of dignity for ecclesiastics of rank, and on monuments are mainly confined to members of cathedral and collegiate bodies.

Except when shown in academic robes, clerics are almost always depicted in one or other of these two classes of vestments, though they do not necessarily wear all the vestments of that class, and (with one important exception,

to which I refer later) it is comparatively rare to find eucharistic and processional vestments worn together.

Bishops and mitred abbots are usually portrayed in eucharistic vestments, with the gloves, sandals, mitre, and pastoral staff, as on the slab of Abbot John Barwick (1526) at Selby Abbey, Yorkshire.¹ Very occasionally they appear in processional vestments: I know of one example in England² and two on the Continent,³ but it is extremely rare to find them wearing vestments of both classes together, as in this case, where the abbot is shown in one eucharistic vestment (the alb) and one processional (the cope). I know of no other instance on any monument in Britain, though a wood-carving at Barnack, Northamptonshire, shows a similar combination. The only example abroad that has so far come to my notice is a German brass in Naumburg Cathedral,⁴ but the number of vestments portrayed on it (apart from the purely episcopal ones) is five, as against Abbot Schanwel's two, which must surely be the smallest number to be found on the monument of any churchman of his rank.

Some notices of this abbot are to be found in *The Register of Cupar Abbey*,⁵ *Jervise's Memorials of Angus and the Mearns*,⁶ and Rev. Æneas B. Hutchison's *Memorials of the Abbey of Dundrennan*.⁷ He is said to have been the second mitred abbot of Cupar, the dignity having apparently been conferred in 1464 on his predecessor, David Bayn, and by the marriage of his sister with John Reid of Akynhead he was uncle of the celebrated Robert Reid, Prior of Beaulieu, Abbot of Kinloss, Bishop of Orkney, and President of the Court of Session, one of the last great prelates of the pre-Reformation Scottish Church.

Abbot Schanwel sat in the Parliaments of 1481, 1482, 1488, and 1491, and again in 1504; in 1491 he was one of the Lords of Council in Civil Causes. His name appears in a lease of the abbey lands of Murthlie in Mar, granted 10th March 1488 to Margaret Charteris and her sons John and Alexander of Strachan, and in a later lease of the same on 14th March 1494 to William Forbes of Towie. He was also party to an agreement of 6th May 1500 between the monastery and Andrew Liel, pensioner of the Church of Brechin, anent the lands of Redgorton: this deed gives the names of the sub-prior, Thomas Schanwel (doubtless a relative), and fifteen of the brethren.

During the pontificate of Innocent VIII (1484–1492) a General Chapter of the Cistercians appointed Abbot Schanwel to visit and reform the

¹ The stole and gloves are omitted.

² The brass of Samuel Harsnett, Archbishop of York (1631), at Chigwell, Essex.

³ The brass of Bishop Rupert (1394) in Paderborn Cathedral, Germany, and the incised slab of Luke Munnich, Abbot of St Bavon (engr. 1600), in Ghent Cathedral, Belgium.

⁴ Bishop Theoderic von Buckenstorf (1166).

⁵ Grampian Club (1879), edited by Rev. Charles Rogers, LL.D., F.S.A.Scot., pp. 88–95.

⁶ 1885 edn., II. pp. 189–190.

⁷ Exeter, 1857, pp. 11–12.

monasteries of the Order in Scotland. In the course of his visitation he is said to have deposed the abbots of Melrose, Sweetheart, and Dundrennan, presumably for some defect of discipline, though neither the cause nor the names of the deposed have come down to us.

The last notice of this abbot is of his attendance at the Parliament on 11th March 1504.

I rubbed this slab in September 1936. For a long time all efforts to ascertain the manner and date of its discovery proved fruitless, despite the curious fact that Macgibbon and Ross, in their description of the abbey published in 1897,¹ make no mention of it, while describing and illustrating all the other mediæval remains. The omission from their pages of such a fine monument seemed inconceivable except on the assumption that at the time of their visit it was still undiscovered—and this, combined with the statements of Rogers (1879) that the date of Abbot Schanwel's death is unknown, and of Rev. James Gammack (editor of the 1885 edition of Jervise's *Memorials*) that he was abbot until 1509, led me to conclude that despite the apparent lack of all knowledge as to when it was found, the slab must have been brought to light within the last half-century.

Just a fortnight after reading this paper, I had the good fortune to secure a copy of Jervise's last (and somewhat rare) work *Epitaphs and Inscriptions from Burial Grounds and Old Buildings in the North-East of Scotland*, and at p. 74 of vol. i (published in 1875) came upon this passage:

"About four years ago a mutilated slab was disinterred. It bore the following inscription, which has been kindly communicated by the Rev. Dr Stevenson:

—HIC IACET VENERABILIS PATER DOMINUS IOHANNES.
SCHANWEL QUONDAM ABBAS DE CUPRO QUI OBIT.
A.D. M.D. VI.

(Here lies a venerable father in God (*sic*) JOHN SCHANWEL late of the Abbey (*sic*) of Cupar, who died A.D. 1506.)

According to the *Reg. Ep. Brechin* (i. 220), Thomas (?) Schauvel was sub-prior of Cupar in 1500, and is a witness to a deed by Abbot John Campbell (*sic*) regarding the lands of Redgorton, dated 6th May of same year."

As the contents of this volume were largely based on articles contributed by the author to the *Montrose Standard* between January 1868 and November 1874, I set inquiries afoot, and have now ascertained, through the kind offices of Miss Mary Smith, interim County Librarian, Montrose, and Mr James S. Henderson, editor of the *Blairgowrie Advertiser*, that the slab was unearthed

¹ *Ecclesiastical Architecture of Scotland* (Edinburgh, 1897), iii. pp. 491-497.

by the sexton while digging a grave in the churchyard towards the end of 1869, the find being reported in the *Blairgourie Advertiser* of 11th December of that year.

This, in the light of Jervise's note, raises some interesting points.

(1) Jervise failed to identify John Schanwel with the contemporary Abbot John of Cupar whom he mentions in the first edition of his *Memorials* (1861). In this he may have been to some extent misled by the *Reg. Ep. Brechin*, which appears to have confused Abbot Schanwel with Donald Campbell, the last abbot (1526-1564), but there seems no doubt that "small Latin" was at least a contributory cause, for his errors in translating the inscription make it clear that he never even realised that John Schanwel *was* an abbot.

(2) The discovery of the slab could not have become widely known at the time, otherwise the statements of Rogers and Gammack referred to above would be unintelligible.

(3) How did Gammack come to make the statement that Schanwel was abbot till 1509? One can only suppose him to have inferred that this year, which saw the transfer of Abbot Turnbull from Melrose to Cupar, must also have witnessed Schanwel's death or resignation, since there seems to be no record of another abbot coming between them. It is quite obvious that he missed the reference to the slab in the *Epitaphs and Inscriptions*, although he mentions this book specifically as one of the authorities he used.

(4) The silence of Macgibbon and Ross would strongly suggest that at the time of their visit the slab had not been set up in the church, but was probably lying neglected in some odd corner.

2. *A Monk* (c. 1450). (?) *Now lost*.

On p. 493 of Macgibbon and Ross's third volume,¹ published in 1897, is a line drawing (fig. 1449) showing a slab engraved with the lower half of a figure in monastic dress and part of the bottom line of a marginal inscription ("obiit anno dni millesim[o]"). The following note regarding it is on p. 492:

"A broken slab, measuring about 3 feet 3 inches high by 3 feet in breadth (fig. 1449) is lying in the churchyard. In the Rental Book it is referred to as being built into the wall of the church which preceded the present one (erected about thirty years ago) and as bearing 'the effigies of a priest' with the inscription on the margin: 'Monachus de Cupro qui obiit anno dni. Millesimo quadringentesimo quagesio.' From the present state of the fragment, it is evident that little respect is paid in Cupar to the remains of the ancient abbey."

I was unable to find this slab in September 1936 or on any of my subsequent visits. All inquiries have so far failed to elicit any clue as to its

¹ *Ibid.*

fate or present whereabouts. Many of the abbey stones are said to have been used as building material in the burgh: a sculptured shield inserted in a modern house opposite the west wall of the churchyard provides melancholy corroboration of this, and it seems that the monk's slab has probably, at some time since 1897, suffered a similar doom. It may, one hopes, turn up unexpectedly some day, but for the present it must be regarded as lost.

SADDELL ABBEY (ARGYLLSHIRE).

A Monk (Early Sixteenth Century).

In the ruins of Saddell Abbey, on the Kintyre peninsula, are nine slabs and part of a tenth. Some of these were described in a paper read before this Society on 12th April 1869 by the late Captain T. P. White, R.E., with illustrations of two out of the five that bear effigies.¹ Of the other three, the most interesting is this slab of a Cistercian monk (fig. 2).

The slab is of mica-schist and shaped like a coffin-lid: the extreme length is 5 feet 9 inches, the sides measure 5 feet 2 inches, and the breadth tapers from 1 foot 6 inches at top to 10 inches at base. Apart from the upper portion, whose surface has either weathered or been hacked away, the stone is in fairly good preservation. The figure is clad in the Cistercian tunic or cassock, with a hood covering the head. The hands hold a book, which is clasped against the breast: the feet are absurdly small. Over the head was a cusped and crocketed canopy which the very small surviving fragment shows to have been Celtic in type. The foot inscription is in debased black-letter with a cross patée placed at the commencement: only the words "Hic iacet" are unmistakably clear - of the remainder I can make nothing. The background of the slab has been recessed, leaving canopy, effigy, and inscription standing out in flat relief.

In his *Archaeological Sketches in Scotland—District of Kintyre*, published in 1873² Captain White both illustrates³ and describes⁴ this slab, but he is clearly in error in stating that the monk is wearing a surplice: the garment is quite plainly the "tunica," or cassock. He mentions that the slab had been discovered a few years earlier by a carpenter, who came upon it two or three feet below ground when digging a grave for a child.

Captain White does not suggest any date for this monument, but the use of black-letter in the inscription practically fixes it in the first half of the sixteenth century, as this type only came into use in the West Highland area about 1500.

¹ *Proc. Soc. Ant. Scot.*, viii, pp. 122-135.

² Edinburgh (Blackwood).

³ *Ibid.*, pl. xlv.

⁴ *Ibid.*, p. 176.



Fig. 2. A monk (early sixteenth century).
SADDELL ABBEY
(ARGYLLSHIRE).

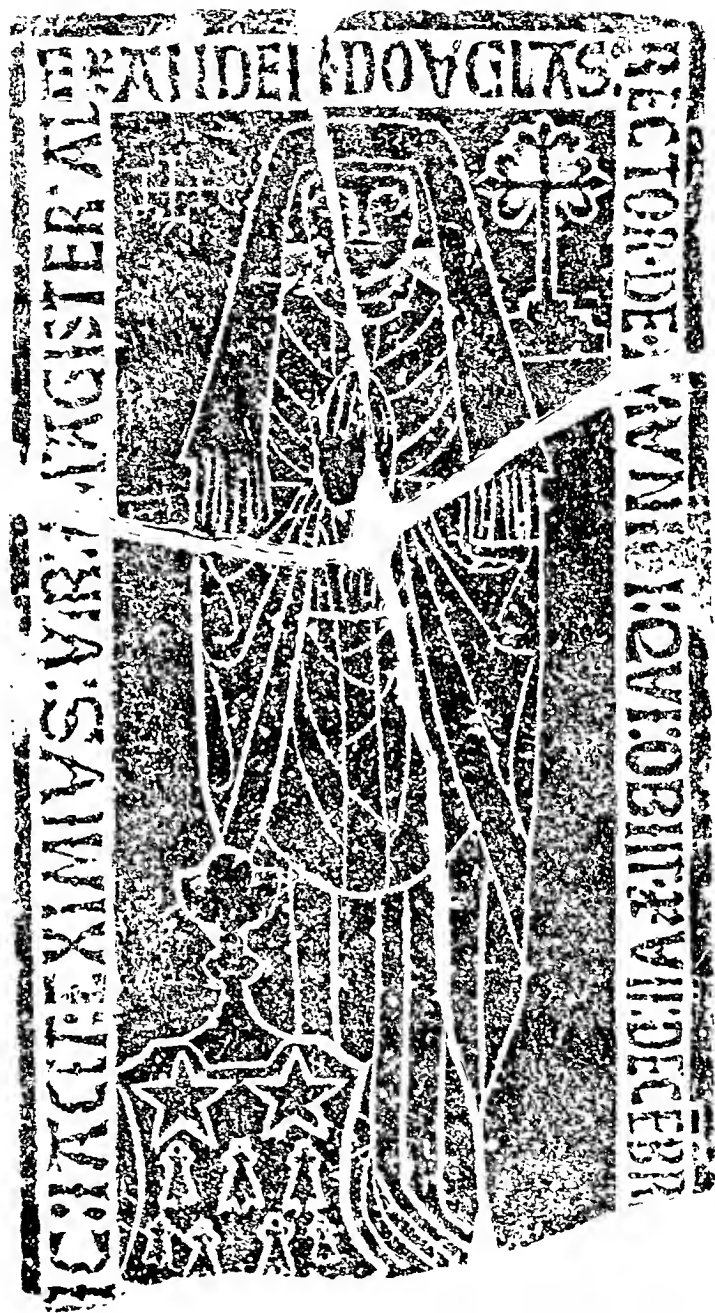


Fig. 3. Alexander Douglas, Canon of Dunkeld and Rector of
Moneydie (1548).
DUNKELD CATHEDRAL (PERTSHIRE).

DUNKELD CATHEDRAL (PERTSHIRE).

Alexander Douglas, Canon of Dunkeld and Rector of Moneydie (1548).

On the tower floor lies a slab of brownish sandstone, engraved with the effigy of a priest. The extreme bottom portion is missing, and the remainder, now broken into four, measures 2 feet 10 inches in breadth, and the vertical sides 5 feet 3 inches and 4 feet 9 inches respectively (fig. 3).

The figure is shown with eyes closed and hair somewhat less than shoulder length, wearing alb and chasuble, and as a head-covering the almuce, whose lower edge, with its fringe of pendent fur tails, falls around the shoulders. The wearing of the almuce (a processional vestment) with the ordinary eucharistic ones by canons in some countries is, so far as I know, the only normal departure from the general rule whereby a priest is shown in either eucharistic or processional vestments, but not in a mixture of both.

The almuce is variously portrayed on monuments. Originally a hood of grey fur, it was later enlarged by the addition of a cape and two large pendants in front, made from the tails of the animals whose fur was used, and the lower edge of the vestment was often trimmed with smaller pendants. On English monuments this later form is the one generally shown, with the cape worn on the shoulders and the hood thrown back, presenting somewhat the appearance of a roll collar, and a number of brasses of German canons show a similar treatment. On French monuments, however, the almuce, though usually depicted in its later form, is often placed on the head with the cape and pendants hanging down behind¹; at other times it is shown carried over the left arm.² I know of no English monument showing it as a head-covering save for two sculptured effigies at Bitton, Gloucestershire, where it is worn with the other processional vestments, neither can I recall a single English example of it worn with eucharistic vestments. The only evidence of Scottish practice I have yet noted is this slab from Dunkeld and three sculptured monuments of canons in St Machar's Cathedral, Aberdeen, and in all four cases the more primitive form - the hood without the cape - is shown, worn with eucharistic vestments, which would seem to indicate that Scottish canons, while following in general the fashion of their French brethren, continued to use the earlier and doubtless less costly form of the almuce.

The alb and chasuble are very plain: no apparels are visible on the former, and the orphrey of the latter is unenriched. By what looks like an engraver's error, the chasuble is shown much longer behind than in front, a peculiarity also found on an incised slab of a priest (*c.* 1520) at Lowdham, Nottinghamshire.

¹ Examples occur on incised slabs of canons in the cathedrals of Rouen, Laon, Noyon, and Châlons-sur-Marne.

² As on two incised slabs in the cathedral of Saint-Pol-de-Léon, Brittany.

The marginal inscription is in flat relief against a recessed background, the words being separated by lozenge-shaped stops. The surviving portion is in capitals (the earliest example of their use I have yet found in Scotland) except for two "x"s which are in the older black-letter. It reads as follows, beginning at bottom dexter corner:—

“(H)ic iacet eximius vir magister Alexander Douglas rector de Munidi qui obiit XVII Decembri(s) Anno Domini millesimo quingentesimo XLVIII.”

The missing portion is supplied from a copy of the inscription given in No. XV of *The New Statistical Account*,¹ published 1837, when the slab was apparently complete—unfortunately its position in the cathedral at that time is not stated.

Quite apart from the evidence afforded by the costume, there is no doubt that Alexander Douglas, though described only as Rector of Moneydie, was also a canon of Dunkeld. From about 1510 at least, when Alexander Myln was presented to the living,² the Rectory of Moneydie formed the prebend of one of the Dunkeld canonries. Myln held the benefice till 1517, when he became abbot of Cambuskenneth,³ and during the period of his incumbency frequently appears in the records as one of the auditors of the diocesan accounts and master of work at the bridge, being variously referred to as “Rector of Monydy,” “Prebendary of Monydy,” and “Canon of Dunkeld.”⁴ In a statement of the rental of the bishopric, drawn up in 1561, Moneydie appears as one of the richest of the 15 prebends, only Menmure and Ferne having a greater money value—it was at that time set in tack for 100 pounds, out of which ordinary expenses amounting to 20 pounds had to be met, leaving a net income of 80 pounds,⁵ a fair sum for those days, so that it is hardly surprising to find the last Catholic rector, Walter Struthers, bringing an action in 1568 against Thomas Makgibbon, first Protestant minister of the Parish, who was doubtless in enjoyment of the income, calling on him to produce his “provision to that prebend.”⁶

To sinister of the head is a small and graceful cross fleury rising from a three-stepped calvary. The rude cross and initials on the other side are a later scratching.

Low down on the dexter side, and partly obscuring the figure, is a large shield, surmounted by a chalice and wafer: the arms are Ermine, in chief

¹ Page 199.

² *The New Statistical Account* says it was held by him about the year 1480, but this must be wrong, as he only graduated in 1496 (*Rentale Dunkeldense*, Scottish History Society, 2nd Series, No. 10, 1915, pp. xiv–xv).

³ He subsequently became first President of the Court of Session.

⁴ *Rentale Dunkeldense*, pp. 38, 54, 143, etc.

⁵ *Ibid.*, pp. 350 and 351.

The Presbytery of Perth, by Rev. John Wilson (Perth, 1860), p. 151.

two mullets. I have not so far succeeded in identifying these arms with certainty, but they are probably either an error for Douglas of Whittinghame (Ermine, on a chief gules two mullets argent) or else that coat differenced. If it is Whittinghame with a difference, the most likely inferences seem to be:

- (a) That the canon differenced by omitting the chief and counter-changing the mullets, in which event his arms would have been Ermine, in chief two mullets gules, and the engraving would be substantially correct; or
- (b) That he differenced by making the chief wavy or dancetté: if so, there is an engraver's error in the omission of the chief line, unless, as is possible, it was just painted in.

Of these alternatives (a) seems the more probable, as according with what is shown on the slab: either method would be unorthodox, but by no means impossible, or even perhaps very improbable in the sixteenth century.

In pre-Reformation times, however, ecclesiastics frequently used their family arms without a difference, and the shield may have been intended for Whittinghame. In that event the engraver committed the glaring error of putting in the charges before drawing the chief line, and found afterwards that he had not left room for it. Although engravers were often careless, it is hard to credit quite such a stupid blunder, and I therefore incline to the view that the arms are Whittinghame differenced as in (a).

The pedigree of Douglas of Whittinghame gives no help, for it does not mention an Alexander Douglas. If the canon were an ordinary member of that family he would presumably have been some connection—perhaps a younger son, younger brother or cousin—of William, the second Douglas laird, who first appears in 1484 and is mentioned as late as 1544: but he may, of course, have been illegitimate. I have not been able to unearth any biographical details concerning him,¹ but it does not seem unlikely that he may have succeeded Myln in the benefice when the latter went to Cambuskenneth, for the bishop at that time was a Douglas, and would have been more than human, according to the standards of the day, had he neglected so good a chance of providing for a kinsman.

As to whether the shield may have been painted, this is quite possible, though not, I think, probable, unless the slab was originally on a high tomb or inserted in some part of the flooring, such as an altar enclosure, where it would not be subject to the constant tread of feet.

In conclusion, I would express my great indebtedness to Thomas Innes of Learney, Albany Herald, who has given me the benefit of his unrivalled

¹ In view of the arms, it seems doubtful whether the Alexander Douglas who matriculated at St Andrews in 1493 and graduated B.A. 1495 and M.A. 1497 can be the same person, since the Matriculation Roll describes him as "nationis Angusiae."

knowledge in trying to identify the arms, and to the following for advice and aid generously given to me in my search for information about the canon: Rev. John Chisholm, parish minister of Moneydie, Dr H. W. Meikle of the National Library: Mr H. M. Paton, Curator of Historical Records, H.M. Register House: Sir Hugh S. Gladstone, Capenoch, Penpont, Dumfriesshire: and Mr Ian R. Russell and Miss Norah Brodie, Dumfries.

VI.

NEWLY DISCOVERED SCULPTURED STONES FROM PAPIL,
SHETLAND. BY PETER MOAR, CORRESPONDING MEMBER, and
JOHN STEWART, M.A., F.S.A.Scot.

Read March 25, 1944.

At Papil, Burra Isle, Shetland, where Goudie, in 1877, brought to light the famous Papil Stone, now in the National Museum, there have been discovered, in April 1943, the three ornamented and sculptured stones whose photographs and drawings are appended. The stones, which were found during grave-digging operations, were underground, the main slab being found 22 feet from the west end and 6 feet from the north side of the Church of Papil. It was standing upright in the soil, supported by two socket stones, and facing south, the top being buried to a depth of 20 inches. There was no sign of other slabs which might have formed the sides and ends of a cist, but three other socket stones, besides the two supporters, have at various times been found in the vicinity. About 4 feet away was found the second slab depicted, the broken top of a round-headed stone with an interlaced cross in relief.

The present church at Papil, which has not been in use since 1920, only dates from about 1815, according to the *New Statistical Survey*. It was built from the material of an older towered church known as St Lawrence's. The tower is described as a "steeple" by ministers of Burra in 1654 and in 1794, and from the statement that it was "five or six stories high" it is assumed to have been a round tower like that of Egilsey, Orkney, or perhaps Abernethy and Breehin on the mainland of Scotland. It is said to have been one of three "steepled kirks" in Shetland, the other two being situated at Tingwall, the centre of the Norse archdeaconry, and Ireland, Dunrossness. Edmondston, writing in 1809, laments that it has been pulled down to build the parish church. This older church of St Lawrence stood north and west of the present building, and a third primitive building is traditionally reputed to have been situated on the north side of St

Lawrence's Church. The only trace of the towered building consists of small bits of lime and mortar, not a stone being left. There is no reason to believe that the 1943 slab was found in its original position any more than the 1877 stone, which when first noticed by Gondie was lying south of the church, decorated side uppermost, and had been used past living memory to mark the family burial place of the Baptist missionary.

THE STONES. 1. PAPIL CROSS SLAB. (Pls. V. and VI.)

Pl. V. 2. with the supporting socket stones shows this stone as it is stated to have been discovered, though there is some doubt about the actual position of the raised socket stone on the right. The propped-up position, however, is the only way in which it will fit the socket, and the top of this socket stone, unlike the rest, is heavily weathered. The slab is rectangular, of close-grained sandstone, 3 feet 4 inches long at the top, an inch less at the bottom, 1 foot $10\frac{1}{2}$ inches high, 2 to $2\frac{1}{2}$ inches thick, and weighs about $1\frac{1}{4}$ hundredweight. The front of the stone has been dressed smooth, the back roughly so, and the top edge has been carefully rounded. Each end has been chipped for a distance of 10 inches from the foot of the slab, to a depth of an inch or a little less, leaving two projecting shoulders or tenons above of approximately 13 inches long, which fit the sockets of the supporters. These tenons have been ground away, back and front, to the form of a blunt wedge, in order to fit better. The stone, the material of which is not found in Burra, but can be obtained on the Mainland a few miles away, is in a good state of preservation, the only flaked portions being part of the top edge, and the only figured part damaged being the head of the third monk. The decoration in the centre of the cross is somewhat weathered, and could only be followed by feeling with the finger-tips. The bulk of the design is in double relief, many parts being raised above the others, as, for example, the hoods, hands of clerics, leg of monk riding, hind leg of horse, hems of robes, and decoration in the centre of the cross. The only parts incised are the satchel and straps, the reins and bridle, and the eyes and fingers. The background has been pecked away to an average depth of one-eighth of an inch. Although a photograph gives that impression, the cross is in no way raised at the edges, but is perfectly level on the whole surface. The space between the central boss on the cross and the surrounding ornament is recessed, but much worn. The spiral is entirely in relief.

STONE NO. 2. PAPIL INTERLACED CROSS. (Pl. V.)

This important fragment, which sheds more light on the nature of the Papil settlement than any other find there, was discovered by Mr Peter Moar while making investigations about the Cross Slab. The design is in the

nature of Irish recumbent monuments and the stone has evidently formed part of a cross-slab with an ovally rounded top. The cross is in low relief. The greatest length is $16\frac{3}{4}$ inches, breadth $12\frac{3}{4}$ inches, and the thickness varies from $\frac{3}{4}$ inch on the left to $1\frac{1}{4}$ on the right. The material is brown sandstone, and the carving is much better than the photograph indicates. The stone had been found at the same time as the Monks' Slab, about 4 feet away, but little attention had been paid to it.

STONE NO. 3. PAPIL CROSS STONE (SOCKETED). (Fig. 1.)

This stone, which is shown in position on the right-hand side of the Cross Slab, in Pl. V, 2, has two sockets at right angles to each other, one fitting into the slab and one behind the cross. These two sockets are centrally placed with regard to the ends of the stone, unlike the other socket stone, where it can be seen that the mortise is nearer the narrow end. It must be emphasized that the photograph is intended to reconstruct the nature of the stones and slab when found, and is not an attempt to build up whatever the original may have been. On the right edge of the Cross Socket Stone, at a point 7 inches from the bottom centre, the side had been ground away to a depth of approximately half an inch all the way to the top, except at a point 17 inches from the bottom centre, where a flat-topped circle or boss of $2\frac{1}{2}$ inches diameter and half an inch high had been left. The stone is approximately 5 inches thick here and the boss is centrally placed. The cross is incised to a depth of one-eighth of an inch, and the dagger-like appearance is due to the incision "tailing out." The spiral decoration above the cross extends to the curvature at the narrow end of the stone, and is lightly incised and almost indecipherable. The stone, like its neighbour, is $24\frac{1}{2}$ inches long, is of sandstone, and, with the exception of the circular side boss, the decoration is incised.

The left socket stone had originally been longer, but had been reduced to the required length by chipping at the broader end. On this stone one socket is filled by the tenon of the slab, the second, which is in front in Pl. V, demonstrates the nature of the

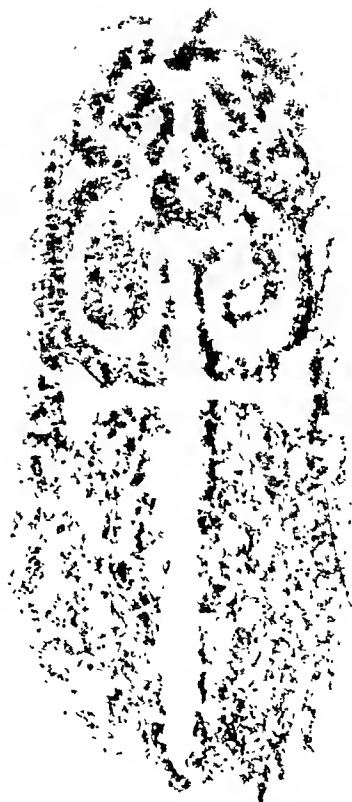


Fig. 1. Rubbing of cross on socket stone.

sockets, and there is another shallow unfinished socket on the side farthest away from the slab. The socket in front in the photograph does not fit the tenon of the slab, leaving the one at present engaged there for a hypothetical side slab. The unfinished socket does not seem to have been the beginning of a cross, but this side had been tooled to some extent, as if to alter the outline to the shoulder and boss effect achieved on the extreme right side of the decorated socket stone.

The other three socket stones are similar in nature, with three sides socketed and one plain. One of them was found some years ago, about 10 feet north of the present find, with a skull at its foot. Fitting into its three sockets in signpost fashion were rectangular flat slabs. One of these is still in the churchyard, a square of about 14 inches side and 2 inches thick. Two corners have been chipped away, leaving a tenon of about 1 foot by $1\frac{1}{2}$ inch, which can be fitted into some of the sockets. Evidently these stones have been used at the same time and for the same purpose. The difficulty is the unusual number discovered—five.

Some minor points which will be apparent from the illustrations may be remarked upon. At the foot of the Cross Socket Stone are some marks resembling an Ogam letter. These are apparently accidental and made by some tool in the nature of a narrow chisel. While all that is certain of the design above the cross on this stone is shown in the plate, it must be noted that the latter is incomplete, as reference to fig. 1 will show. The design cannot be followed by feeling with the finger-tips. Although there appears in the photographs to be some design on the book satchel on the Monks' Slab, there is definitely nothing to be seen on the actual stone.

Sculptured stones now found in Shetland can be listed as follows:—

- 3 complete slabs—Burra or Papil Stone; Bressay Stone; Papil, 1943.
- 1 ornamented Socket Stone (Papil, 1943).
- 2 Interlaced Cross Stones—Papil, 1943; South Whiteness (see *Proc. Soc. Ant. Scot.*, vol. lxxi, p. 369).
- 1 incised cross on slab (early type). Papil Churchyard (see Goudie's *Antiquities of Shetland*, p. 49).
- 2 Ogam slabs—Lunnasting; St Ninian's Isle (both in National Museum).
- 2 Ogam fragments—St Ninian's Isle. Discovered by Goudie, but lost.
- 2 Ogam fragments—Cunningsburgh (in Museum).
- 3 Runic Stones ¹—At Cunningsburgh (in Museum).
- 1 "Pictish" Symbol Stone—Sandness (figured by Low in 1774).
- 2 pairs of fragments with spiral ornament—Uyca; Lerwick Museum (locality unknown). Now in National Museum.

¹ A stone Low records at Eshaness, Northmaven, seems to have been a seventeenth-century memorial (Ancient Monuments Inventory).

The finding of the present stones probably raises more problems than it solves, for to discover parallels we have to go far afield. Only three Scottish rectangular upright slabs are known, at Murthly, Meigle, and Dull, all in Perthshire, and two of these appear to have had the sculpturing in relief in a recessed panel in the upper half of the stone, as at Papil. There is, however, no resemblance in topic or style of treatment. A known example of a sarcophagus from St Andrews, and a supposed one from Flotta, Orkney, had grooves to receive the sides, after the style of a window-sash or easel, and were radically different in artistic style both from each other and from the Papil stone. There is no parallel for the socket stones, and these so far add something to our knowledge. Figures of monks with the same kind of peaked hoods appear in a fragment at St Vigean's (Romilly Allen, *E.C.M.S.*, p. 240), in the Bressay and former Papil stone, at Maughold, Isle of Man (Kermode, *Manx Crosses*, pl. 67), and, more imperfectly, or with a difference, on a few other Scottish stones. The crooked crozier, which according to Coffey only became common in Ireland after the seventh century, is found at Bressay, Papil, Brechin, Meigle, and on the afore-mentioned St Vigean's stone, but book satchels, though a common enough piece of monkish equipment, are confined to the Shetland examples.

It is in general design, however, that the stone stands out on its own. The long-shafted Latin cross, with its flared arms and almost square base, is unique. There is no Scottish parallel, and the nearest approach to a resemblance is presented by Irish recumbent slabs from Inishcealtra, Galway, of twelfth century date. These, however, lack the slightly flared ends, and the base is in each case a trapeze, with the narrower end at the shaft. It seems, however, that it is to Ireland that we have to look for parallels. The re-entrant C-spiral on the Papil slab is painstakingly made by rule-of-thumb methods. The sculptor makes the first five volutes with the same number of turns; then he seems to realise that he will not have room for the nine which he apparently aims at, and the result is three imperfect volutes and a last one with a turn too many. There is no similar spiral in Scottish examples, but it is paralleled at Castledermot, Kildare, where the monastery was founded in the ninth century (Crawford, *Carved Ornament from Irish Monuments*, pl. xvi). Modified C-curves, like those used in the centre design of the cross, can be seen in the Irish examples, both as borders (Crawford, *ibid.*, Durrow Abbey Cross), and as terminals to the arms in cross slabs; but their use to offset a central boss is a *tour-de-force* of the Shetland sculptor. The style of the horse (which, with due respect to a national journal, is not an "Iceland pony," for Iceland, if discovered, had had scant time to evolve a breed) is the best of its kind on sculptured stones, the nearest Scottish approaches being at Aberlemno, Angus (*E.C.M.S.*, pl. xxxv), and Meigle, Perthshire. The two odd wedge-shaped insertions and imperfect spiral, the pictorial accuracy and perfection

of the design, the skilful work in relief at three levels all indicate an original genius who owed more to his own native skill than to technical training.

There is the same accuracy and restfulness which is found in the earlier Papil stone, and in mentioning this a hypothesis may be put forward on artistic grounds alone. It is that the two bird-headed figures with axes, picking at a skull, in the bottom section of the latter are not contemporary with the rest of the sculpture, but have been added after the stone had been set up, and by an inferior artist. If this is the case, the stone, before becoming a museum piece in the capital (like the Stone of Destiny), may have in turn marked the graves of Christian Celt, heathen Norse, and Baptist!

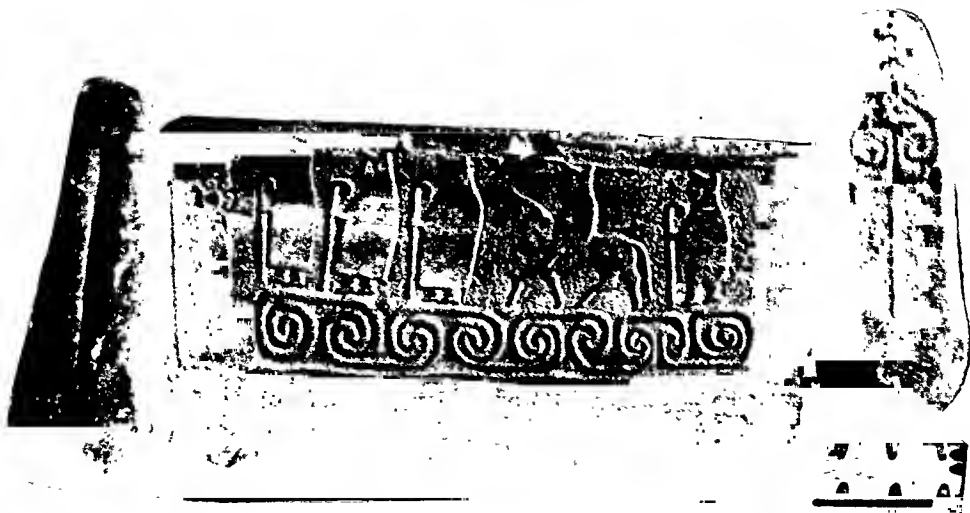
The simple incised cross with wedge-shaped ends which is found on the socket stone seems to be without parallels on the mainland of Scotland, though there is something similar in Iona (*E.C.M.S.*, p. 400) and again in Eilean na Naomh (*ibid.*, p. 402). But it is old in Ireland, and appears on the Kilnas-aggart Stone (Armagh), which also has the modified C-spirals in the centre design of the cross on the Monks' Slab. Petrie gives an example from Clonmacnois, doubtfully dated to the ninth century (*Christian Inscriptions*, vol. I, pp. 27-8), and further examples from Aran, Limerick, Inishmurray and Inishcealtra. The spiral on the socket stone appears to be completely paralleled, if we accept what the rubbing seems to indicate, in a more elaborate form at Tihilly, County Offaly, not far from Clonmacnois (Crawford, *Carved Ornament*, pl. xvi, 5). It is also found on the ninth century cross of Bealin, Westmeath. It may be added that Kermodé, among his Manx crosses, figures a stone with the wedge-ended incised cross, with Anglian seventh to eighth century runes. This cross has a diminutive Chi-Rho appendage, but it is probable that the spiral above the Papil Cross also marks it as of reasonably early type.

With regard to the Papil Interlaced Cross, there is no great difficulty in finding almost exact parallels, not in Scotland, where the only cross of the type is at Iona (*E.C.M.S.*, p. 386), but again in Ireland. Practically the same cross is found at Clonmacnois, County Offaly, and is figured in Crawford's *Irish Ornament*, pl. xiii, and in Petrie, vol. i, p. 44, where from the inscription a date of 916 is thought possible. In vol. ii, p. 43, Petrie gives another example from Inishcealtra, Galway, and he has a third from Lemnaghan, Offaly. Irish antiquaries, who have inscriptions and records to go upon, regard this fairly common type of cross as tenth century. It may be noted that the Whiteness fragment (*Proc. Soc. Ant. Scot.*, vol. lxxi, p. 369) gives us another Shetland cross of this Irish type.

The conclusion must be that a community of Irish monks had established itself in Shetland at least a thousand years ago, and that this community could have few links with the mainland of Scotland. But this is not surprising. The historical trend of communications has in general been south and west, as evidenced by Stone Age collective tombs, which in many cases must



1. Interlaced Cross.



2. The Cross Slab with Supporters.



The Cross Slab.

be derived from the Boyne culture of Ireland, by the distribution of brochs and by the Norse settlements. Ogam writing, of which there are but 9 examples in all the eastern counties of Scotland south of the Moray Firth, 2 each in Caithness and Orkney, 1 in Sutherland, and 3 in south-west Scotland, is represented by 7 examples in Shetland. There are 300 examples in Ireland, mainly in Cork, Kerry, Waterford, and Kilkenny, 26 in Wales, 5 in Devon and Cornwall, and 7 in the Isle of Man. No arguments can be advanced for either Pictish or Columban missions from this, for Ogams were prior in general to monkish communities: least of all can one argue any reasonable insular inscription in any language, Pictish, Gaelic, or otherwise, but the relatively numerous inscriptions in both early and late Ogams in the Isles afford another example of the historic sea-routes along which ideas and people moved.

The evidence of dedications in Shetland cannot lead us far with regard to the early church there. Though Orkney is sometimes mentioned in the monkish records as the scene of the labours of Servanus, Moluoc, Kentigern, Drostan, Colm, Brendan, Dotto, Bathan, Caemhan or Couranus, Cormac, and other half-mythical personages, and Ninian is credited with having sent a preacher to "the islands that are afar off," Shetland is nowhere mentioned, nor have the various references been put to that critical examination without which they are valueless. The dedication of Papil to St Lawrence does not help us at all. Goudie, in reporting the previous Papil stone, mentions a Lawrence *born* in 619, whose name he says is associated with Laurencekirk. As St Lawrence's Day was celebrated in Shetland of old on August 10th, Old Style, this cannot be the Lawrence given by Goudie, if he ever existed, and is not merely a garbled version of Laurence of Canterbury, Augustine's successor, who *died* in 619. It is indeed the Spanish martyr, who was roasted on a gridiron in 258, in the reign of the Emperor Valerian: the man for whom the Escorial ("gridiron") is named, who became a popular Norse saint.

Known Shetland dedications are as follows: Holy Rood 6, St John 6, St Mary 6, St Paul 3, St Matthew 1. Saints: Olaf (King Olaf Haraldsson of Norway) 7, Magnus (Earl Magnus Erlendsson of Orkney) 5, Margaret 2, Bartholomew 2, Nicholas, Gregorins, Sunniva, Hilary, Baruaby, and Lawrence 1 each. Of Celtic saints St Ninian is commemorated in St Ninian's Isle (locally until recently St Ringan's Isle), and a St Ninian's Chapel at Norby, Sandness, which seems to rest on nothing more definite than the evidence of the Ordnance Survey map. St Colme is given in a sixteenth century reference to Cummingsburgh, and St Columba seems a *later* tradition for the church of St Olaf at Hillswick. Two suggestions of Goudie, St Columba for Chumlie and St Levan for Levenwick, must be rejected outright, as they rest on no securer basis than their resemblance to place names. It will be seen that the evidence of dedications for a Celtic church is practically negative.

Pre-Norse historical references are invariably to Orkney, with the exception of a nebulous Thule, which appears to vary from Iceland and Shetland to Norway. In 449 the Saxon chiefs Ochtha and Ebissa are said to have laid waste the Orkneys, and in 565 the ruler of Orkney is said to be at Inverness and giving hostages to the Pictish king. In 579-80, 682, and 709 the isles are alternately attacked by the Scots and Picts. These, with well-enough attested references to great plagues, are the historical sources apart from monkish records of saints, until the thirteenth century "*Heimskringla*" refers simply to "a great going to Shetland" in 872. Viking raids on Britain appear to have begun as early as 784, and Brøgger and Finnur Jonsson, on evidence slight in itself but both linguistic and archæological, would postulate a peaceful Norse emigration in this century, a theme well-developed in Brøgger's *Ancient Emigrants*.

If this is granted, there is no difficulty in a late dating for our stones. For evidence of a religious community living under what is likely to have been more troubled conditions in Norse times we can take Clonmacnois in Ireland. It was founded in 548. In the ninth and tenth centuries it was sacked three times by the Irish, twice by the Danes, and once by the two combined, yet this was the period of its greatest artistic magnificence. It survived eight other plunderings by Irish and Norman before its final destruction in 1552. Iona was first sacked in 795: it was three times destroyed in the ninth century, when among other eventful things King Kenneth MacAlpin was buried there, the shrine of Columba was removed for safety, and at one time the island was temporarily abandoned. But in the tenth century it was producing crosses in peaceful obscurity. Forty-five out of 117 Manx crosses listed by Kermode are Scandinavian, and the Bressay Stone in Shetland almost certainly is. Many of the Norse settlers in Ireland and Scotland embraced Christianity very early, certainly much earlier than 995, the date of the official conversion of Earl Sigurd Hlodverson of Orkney by the Norwegian king, Olaf Tryggvason, who adopted the simple expedient of seizing and threatening to kill the Earl's son, and then carrying the boy off as a hostage lest his father should waver in faith.

There is no reason to cast doubt, as Brøgger does (*Ancient Emigrants*, p. 61), on the "papa" names in Shetland ("papa" in Old Norse signified an Irish priest), nor on Dicuil and the twelfth century *Historia Norvegiæ* in their references to their voyages, their white robes and their books. The name "Papil," which may be translated as "priest's dwelling," occurs in the islands of Yell, Unst, Burra, and Fetlar, in all cases in the immediate vicinity of, or at no great distance from, church ruins or sites. Papa Stour, Papa Little, and Papa are the names of three islands, and in addition there are some shore names and one or two field names beginning with the word or its variation "pobi." Each name has to be examined on its merits, as some names, especially hill names, are derived from Norwegian "pappe"—

a breast (*cp.* Paps of Jura). But Brögger's wholesale stricture is quite unjustified, for we have a large residue of names which do commemorate early priests, and Papil is one of these.

With regard to the Norse use of "Pettr" (Piet) he is almost certainly correct. Piet names were always given in Shetland by the Norse to pre-historic ruins, or lonely places where no human ever dwelt. Pettigersfield in Whalsay, for example, a hill slope with one or two "rickles" of stones, investigated in 1938, provided a piece of Neolithic pottery, a certain collective tomb, and a probable Neolithic dwelling. Jakobsen's so-called Celtic place-names (*Place Names of Shetland*, pp. 175-207) prove almost invariably on investigation on the spot in particular instances to be disguised Old Norse or Norwegian words, for Shetland maintained a close contact with Norway, with individuals holding land in and migrating to and from both countries, up to the beginning of the seventeenth century. The Shetland dialect, rich in thousands of Norse words, has no Celtic, if one omits a certain common Norse-Gaelic vocabulary, exemplified in Henderson's *Norse Influence in Celtic Scotland*, and a few borrowings through Scotch. Certainly the linguistic argument supports Brögger's theory that the Norse settlers came into an almost empty land. In these days, far removed from pestilence and folk-wandering, we can only surmise at what became of the numerous and well-organised people who built the brochs. But we can now do more than surmise about those early fathers who sought lone isles where they could worship their Lord in peace.

ACKNOWLEDGMENTS.

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VII.

THE EXCAVATION OF ESSLEMONT CASTLE. ABERDEENSHIRE.

BY W. DOUGLAS SIMPSON. M.A., D. LITT., F.S.A. SCOT.

Read March 25, 1944.

The manor of Esslemont lies on the northern margin of the ancient Thanage of Formartine, along the right or south bank of the Ythan, opposite and a little above the town of Ellon, in mediæval times the capital of Buchan. In the fourteenth century the manor belonged to a family surnamed Mareschal, from whom it passed by marriage to the Cheynes of Straloch. In 1493 the original castle was destroyed in the course of a bitter and protracted feud between the Cheynes of Esslemont and the Hays of Ardendracht; and on 22nd June in that year the Lords of Council ordained that William Hay should pay to Henry Cheyne of Esslemont and John his son, "for the dampnage and scatht sustenit be thaim in the destructioun of the Place of Essilmont, xx pundis." ¹ This was followed by a royal licence, issued on 27th July 1500, authorising John Cheyne and his heirs "to big apoun his landis of Essilmont a toure and fortalice quhair he or thai thinkis mayst expedient, and to raiss the samyn to quhat licht thai empleissis, and thair-uppon to mak bertasing, battaling, machevling, irne yettis, portenlais, draubriggis, fowssis, and all other defens and strenchtis as thai think mayst ganyng and conuenient thairto; and for the keeping thair of to haue watchmen, garitouris, portaris, jevillours and all vthir officiaris neidfull." ² During the Reformation troubles the manor passed from the Cheyne family, and later became the property of George Jamesone (1588-1644), the famous painter. In 1646 the castle was occupied by a party of Covenanters, but some of the Royalist garrison of Fyvie, under Captain Blackater, descended on Esslemont and drove them out, killing "thirtie sex of them, and brought away ther horses and arnes, with such other stufe as they had." ³ The Earls of Erroll, who had acquired the estate after Jamesone's death, sold it early in the eighteenth century to James Gordon of Ellon, who in turn disposed of it, in 1728, to Robert Gordon of Hallhead, in the hands of whose descendants it has since remained. The modern House of Esslemont, which lies about half a mile north of the ancient castle, was erected in 1799 and rebuilt in 1866.

Before the excavations now to be described, there was visible on the site only the ruin of a small castellated mansion, dating from the later sixteenth

¹ *Collections on the Shires of Aberdeen and Banff*, p. 304.

² *Ibid.*, pp. 317-8.

³ Patrick Gordon, *Britane's Distemper*, p. 176.

century, and standing on the east side of an enclosure bounded by a fosse—the whole area being covered by a plantation of beech and ash trees. This castellated mansion¹ is built upon a variety of the common L-plan, with a square staircase in the re-entrant angle, and a large round tower, corbelled out to the square above, at the diagonally opposite corner. Internally the house is now a complete wreck, and only the vaulted basement of the round tower survives intact. The large kitchen fire-place is still traceable in the north gable of the main building. The house was three storeys in height, having the hall on the first floor of the main building, with the laird's room in the west wing, and bed-chambers in the round tower. On the latter the corbelling is so managed that the square cap-house does not form a tangent to the circle below, but intersects it. This mannerism points to a date *circa* 1570–90.² Almost without exception, the dressed stones of the building have been torn out. It has been put into a state of thorough repair by the late proprietor.

The recorded history of the site, coupled with the fact that the present ruin, obviously a late structure, is built right on the edge of the fosse, made it likely that the remains of an older castle might lie buried in the heart of the plantation. In the autumn of 1937, the late Captain Wolrige Gordon of Esslemont, with a view to re-planting, cut down the trees—most of which were found to be about 130 years old—and cleared the site of undergrowth and rubbish. It then became obvious that the foundations of a considerable building existed immediately to the north-west of the existing ruin: and Captain Wolrige Gordon readily gave me permission to conduct investigations, the funds for which were generously provided by grants from this Society and from the Natural History and Antiquarian Society of Aberdeen.

Favoured by brilliant weather, the work of digging was carried out in February and March 1938. It revealed (see Plan, fig. 1) the stump of a strong and massive tower-house on the L-plan, measuring about 55 feet by 42 feet over the two long sides, with walls 6 or 7 feet thick, and, where best preserved, remaining to a height of about 6 feet. These walls are built of uncoursed granite rubble, with grouted hearting, and rise from a weathered plinth or offset, 9 inches high on the slope, most beautifully executed in finely dressed pink granite. The entrance, which has perished, was in the re-entrant angle, and admitted to a small vestibule, with the main stair on the left hand. The basement has contained three compartments, of which the eastern was evidently the kitchen, as appears by its slop drain. A part of the haunch of the north-west cellar vault still remains, springing at a height of 4 feet 9 inches. The southern cellar is roughly paved, and has a well-preserved service stair to the screens end of the hall, which evidently

¹ See D. MacGibbon and T. Ross, *Castellated and Domestic Architecture of Scotland*, vol. iii, pp. 603–4.

² For example, it is found at the neighbouring Tolquhon Castle, 1581–9; on Waterton's Lodging, 1574, at Dunnottar Castle; and at Drochil Castle, left unfinished by the Regent Morton at his execution in 1581.

occupied the western or main portion of the tower-house, with the solar in the wing, above the kitchen—a common position, which would ensure it warmth. The service stair is in granite and of the ancient type, without an offset where the risers join the newel. The cellars are lit by narrow loop-holes, opening from wide internal bays. An unusual feature is a second service stair, ascending from the kitchen, and so placed as to supply, with equal convenience, the hall and solar. This stair is connected with the southern cellar by a passage, which has some appearance of having been forced; and as there is a door between the two cellars, all three apartments were thus in communication with each other, and with the upper floors, independently of the main stair. Where preserved, the moulding on the door jambs is a 3-inch chamfer, carefully wrought in granite. One loose granite stone shows the springer of a triliteral headed doorway, moulded with a cavetto sunk in a $4\frac{1}{2}$ -inch chamfer. But the finest architectural fragment found in the ruins of the tower-house was the handsome capital, in pink granite, shown in the sketch, fig. 1. Doubtless it came from a jamb of the hall fire-place.

Remains of an enclosure, as shown on plan, with thin walls of *petit appareil*, were found to the south of the tower-house. This enclosure is probably coeval with the later mansion.

On the scarp of the fosse there has been a curtain wall, 4 feet thick, with an external heel or footing, bringing it up to a total basal thickness of 8 feet. It is possible that this basal portion may be the remnant of an older and thicker curtain. At the two west corners of this *enceinte* are round towers, about 19 feet in basal diameter, with a three-quarter salient and diagonal gorge walls. The north-west tower has a rectangular interior, entered by a gilet-checked door in the gorge wall. The remains of a third round tower, much distorted by tree roots, were found at the north-east corner of the *enceinte*; and as the old curtain runs under the east corner of the sixteenth-century mansion it is possible that the round tower of the latter may be built upon the foundations of a fourth angle tower of the older *enceinte*. The true profile of the fosse (see section, fig. 1) was recovered in a cross-cut on the west side.

Attached to the north wall of the later mansion there is an enclosure, and a cross wall runs in from the north curtain towards the tower-house.

Traces of fire were abundantly present in and around the tower-house. The only relics found were a few fragments of fourteenth- or fifteenth-century pottery—handles, rims and body pieces of green-glazed pitchers, showing the usual leaf-shaped depressions where the handle met the vessel, and one portion of a base glazed on the inside, and devoid of crinkling or pinched-down feet; a sherd with a foliaceous band from which a leafy sprig depends, and a medallion containing the head of a jester in cap and bells; and a much-worn shilling of William III. From the deeper

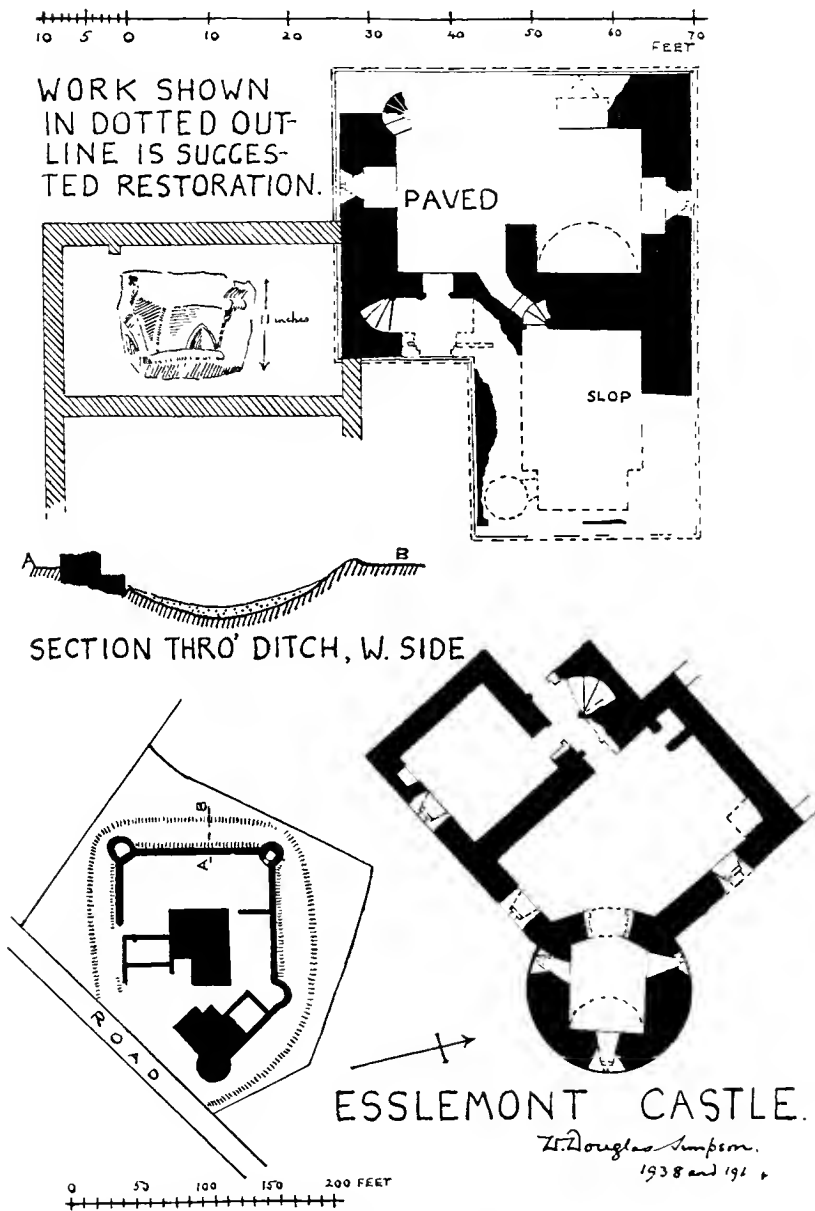


Fig. 1. Esslemont Castle: plan showing results of excavation.

levels of the site a number of animal bones were collected. These were submitted to the Natural History Department of Aberdeen University: but by a sad mischance they were destroyed, in the course of a clearance in the laboratories, before they had been examined.

The plan and details of the tower-house, the style of its rubble masonry, and above all the use of finely tooled granite instead of freestone for its dressings, combine to suggest that it dates from the first half of the fifteenth century. Its affinities are clearly with the "granite interregnum"¹ in Aberdeen, which gave us the nave of St Machar's Cathedral (1424-40) and the "Pity Vault" in the Town's Kirk, built *circa* 1438. The base course of our tower-house strongly resembles in profile the offsets on the cathedral buttresses, and its rubble masonry approximates closely to that in the interior of the nave. This tower-house was no doubt the "Place" destroyed by the Hays in 1493: of that destruction the traces of fire probably are a memorial. The licence to build a new fortalice, issued in 1500, was obviously not at once acted upon, as the second building dates from near the end of that century. No doubt the ruins of the older castle would serve as a quarry for its successor: indeed one or two of its dressed stones may still be seen in the latter.

On the documentary evidence alone, it might be contended that the building erected pursuant to the licence of 1500 was the tower-house. In that case the "Place of Esslemont" destroyed in 1493 would doubtless have been a less substantial edifice—of timber, perhaps, or of wattle and clay. But apart altogether from the chronological implications of the granite ashlar, such a view would leave unexplained the traces of a conflagration found all over the tower-house, and would require us to believe that so massive and durable a structure, after no more than three-quarters of a century's existence, was deliberately pulled down to the ground in order to give place to the existing mansion.

The rectangular curtain wall with its round towers, enclosing the central structure, recalls that at Threave Castle: and, still more closely, the *muris mantelinus* which, now absorbed into a seventeenth-century mansion, encloses the massive L-shaped tower-house, dating from prior to 1453, that forms the nucleus of Hatton House in Midlothian. The fosse may be older than the stone buildings it encloses, and perhaps reaches back to the time of the Mareschals. Unlike the usual Anglo-Norman arrangement, the manorial chapel did not, in this case, closely adjoin the capital messuage. It stood at Chapelton, a good mile to the south. Here, says a writer of *circa* 1725, "there are the ruins of ane chapell, but nothing remarkable about it."²

¹ See Dr W. Kelly, "Architecture in Aberdeen: a Survey," in *British Association, Report of Meeting, 1934, Scientific Survey of Aberdeen and District*, pp. 58-9.

² *Collections, ut supra*, p. 308.

NOTE ON THE CHEYNES OF ESSLEMONT. By FRANCIS G. GRANT,
K.C.V.O., LL.D., F.P.S.A.Scot., Lord Lyon King of Arms.

The estate of Esslemont was possessed by the Marshall family, which came to an heiress Janet who married as second wife Sir Reginald Cheyne, 7th of the name. She was probably the daughter of William Marshall of Esslemont. On account of this marriage the Cheynes have since quartered the Marshall arms with their own. Sir Reginald was the great-great-grandfather of Sir Patrick Cheyne of Esslemont and Elizabeth Annand. He was the father of Thomas of Esslemont and Jerome minister of Tingwall and Archdeacon of Shetland who died 1584. The latter had secured the Archdeaconry lands in Shetland, which he made over to his nephew Patrick of Esslemont, who had a charter of same under the Great Seal on 23rd March 1588 in consideration of his zeal in propagating the gospel. The family thereafter settled in Shetland and were ancestors of several families of the name, viz. Cheyne of Vaila and of Tangwich, most of whom had to part with their estates, and on 5th April 1733 George Cheyne of Esslemont had become so reduced in circumstances that he appeared before the Kirk Session of Tingwall in great distress asking for charitable supply, and was granted a crown out of that day's collection.

NOTE ON A SHERD FROM ESSLEMONT CASTLE.

By J. S. RICHARDSON, F.S.A.Scot., Curator of the Museum.

The fragment of brown stoneware bears distinctive patterns which indicate that it was made either at Cologne, or at the neighbouring potteries at Frechan. The stamped portrait medallion is of the Early Classic Renaissance type and no doubt owes its origin to inspiration from Flanders, where this form of medallion occurs frequently in wood panels.

The leaf-and-stem band ornament also indicates the Cologne tradition borrowed from Flanders.

The vessel, of which the sherd has formed part, was manufactured towards the second half of the sixteenth century.

VIII.

NEWLY DISCOVERED SHORT CIST BURIALS WITH BEAKERS.¹

By PROF. V. G. CHILDE, D.LITT., D.Sc.; ARTHUR J. H. EDWARDS,² DIRECTOR OF THE MUSEUM; PROF. ALEXANDER LOW, M.D.; AND MARGARET O. MACDOUGALL.

1. REPORT ON SHORT CIST FOUND AT LOCHEND, INVERNESS-SHIRE.

By MARGARET O. MACDOUGALL, Inverness Museum.

On Saturday, 6th September 1941, a short cist was discovered during tractor excavations on the Dochfour Estate at Lochend, near Inverness. The cist was situated on a bank about 130 feet above the north shore of Loch Ness and about 30 yards from the main Inverness-Fort William road. The bank dips deeply towards the Loch and is situated on arable land.

The cover slab, which lay about 15 inches below the surface, was smashed into fragments, as were the two side slabs. The slab at the bottom end of the cist was also badly damaged, while that at the top was slightly damaged and cracked. A considerable quantity of loose earth, clay, and gravel fell into the cist almost completely covering the contents. When examined on 11th September the extent of the damage as recorded above was discovered. Careful riddling of the gravel resulted in the removal of considerable portions of a human skeleton. The skeleton, when uncovered, was found to have been placed in the usual crouched position and was lying on its left side facing south. Beneath the skeleton small fragments of charcoal and a burnt substance was found.

A beaker, which fortunately was undamaged apart from a slight crack at the rim, was found behind the head of the skeleton, while a flint nodule was found in the N.N.E. corner of the cist.

The cist, which lay in its long axis N.N.E. and S.S.W., measured internally 3 feet 6 inches long, 2 feet 6 inches wide, and 17½ inches deep. The slabs were roughly 2 inches thick and were of gneiss—a common stone in the district. The floor was composed of small gravel similar to that found on the nearby shores of Loch Ness and was about 1 inch deep. Beneath the gravel was black undisturbed earth.

The flint nodule measures 1¾ inch and 1¼ inch and has not been worked.

¹ We print here as a joint paper four important contributions to knowledge of the Beaker culture in Scotland.—ED.

² The late Director has been unable to correct the proofs of his contributions.

The beaker (Pl. VII, 1) measures:—

Height	$6\frac{3}{8}$ inches (irregular).
Diameter at rim	$5\frac{3}{4}$ inches.
Do. at base	$3\frac{1}{4}$ inches.
Circumference at rim	$16\frac{3}{4}$ inches.
Do. at base	11 inches.
Do. at bulge	$14\frac{1}{4}$ inches.

It is light reddish-brown in colour and has a fairly smooth surface. The inside is slightly rough and is of the same light reddish-brown colour. The vessel is decorated with four bands of incised ornamentation with uninterrupted lines. The ornamentation is roughly executed, some incisions being very slight, merely marking the surface, while others are $\frac{1}{32}$ of an inch deep. The bottom band of engraving is irregular, part being herring-bone and the remainder half-crescent markings. The remaining three bands are larger than the bottom band—the two top consisting of two rows of right to left strokes about $\frac{3}{16}$ inch long, between which there is a row of right to left strokes and left to right strokes joined by a perpendicular stroke. The third band differs in that it has no band of right to left strokes.

A report on the skeletal remains has been submitted by Professor Low, Aberdeen. The loose gravel which fell into the grave completely crushed several bones and badly damaged the skull. Several teeth were missing, but some were subsequently found amongst the loose gravel, while others had been removed by some unauthorised person.

My thanks are due to Baroness Burton for her kindness in presenting the contents of the cist to Inverness Museum, and to Professor Low for his report upon the skeletal remains.

2. SHORT CIST AT LOCHEND, INVERNESS. REPORT ON THE SKELETAL REMAINS. By Prof. ALEX. LOW, M.D., F.S.A.Scot.

The skeleton from this cist is that of a young man of good muscular development, twenty-five to thirty years of age, and 5 feet 7 inches in stature. The bones are in wonderfully good condition, but unfortunately the tractor in passing over the cist had crushed a number of them.

The Skull.—The vault and face of the skull are well preserved, but the occipital region is deficient. While the basilar suture is closed, all the sutures of the vault are patent both externally and internally, and, further, the cusps of the teeth show only slight signs of attrition, so that it can be estimated that the individual while adult was less than thirty years of age. The skull has distinctly male characters, the supereiliary ridges are pronounced, the orbital margins are rounded and the malars are strong. The outline of the vault as viewed from above is broad

TABLE I.—MEASUREMENTS IN MM. OF SKULL FROM SHORT CIST AT LOCHEND, INVERNESS.

Sex	Male	Transverse arc	322
Cubic capacity	—	Horizontal circumference	—
Glabello-occipital length	182 ap.	Maxillo-alveolar length	56
Maximum breadth	156	Maxillo-alveolar breadth	66
Minimum frontal breadth	98	Palatal length	47
Basibregmatic height	130 ap.	.. breadth	40
Basinasal length	97	.. height	18
Basialveolar length	99	Dental length	45
Nasialveolar height	71		
Nasimental height	124	<i>Indices.</i>	
Bizygomatic breadth	135 ap.	Length-breadth	85.7
Bigonial breadth	—	Length-height	71.4
Nasal height	47	Gnathic	102.0
Nasal breadth	25	Upper facial	52.6
Orbital height, R.	31	Total facial	91.8
.. .. L.	30	Nasal	53.2
Orbital breadth, R.	41	Orbital	75.6
.. .. L.	40	Maxillo-alveolar	117.8
Frontal arc	132	Palatal	85.1
Parietal arc	132	Dental	46.4
Occipital arc	—		

TABLE II.—MEASUREMENTS IN MM. OF BONES OF EXTREMITIES FROM SHORT CIST AT LOCHEND, INVERNESS.

	R.	L.		R.	L.
Humerus:			Tibia:		
Maximum length	323	—	Maximum length	384 ap.	385
Radius	—	261	Ant. post. diam.	38	37
Ulna	—	280	Trans. diam.	26	25
Femur:			<i>Platycnemic index</i>	68.4	67.5
Maximum length	473	472	Angle of torsion	—	37°
Oblique length	466	462	Fibula	375 ap.	—
<i>Upper third of shaft:</i>			Stature as calculated from femur	5	
Ant. post. diam.	27	27	feet 7 inches.		
Trans. diam.	39	38			
<i>Platycnemic index</i>	69.2	71.0			
Angle of neck	127°	123°			
Angle of torsion	23°	—			

and relatively short—*brachycephalic*. The profile view shows a skull moderately high with root of nose depressed, a certain amount of subnasal prognathism, superciliary ridges projecting, and vault flattened.

The face is of medium height; orbits large, narrow, and with long axes somewhat oblique; the nasal aperture is broad; features characteristic of the short-cist Bronze Age skull.

The palate and teeth are in excellent preservation and are of particular interest. The palate is relatively broad and high, and there has been a

complete set of permanent teeth in the upper and lower jaw, but the right upper central incisor and the right lower central incisor have dropped out and been lost. The cusps of teeth are beautifully preserved and show little trace of attrition except for the central incisors which show edge-to-edge bite. The dental length from the front margin of the first premolar to the posterior surface of the last molar is 45 mm., which, relative to basinasal length, gives a dental index of 46.4—*megadont*. There are no traces of caries or other dental disease.

Of the bones of the trunk there are a number of very fragmentary ribs and vertebrae, also pieces of the two innominate bones, the left innominate having male characteristics—a narrow and deep sciatic notch, slight preauricular sulcus and a large acetabulum.

Measurements and indices of the intact limb bones are given in Table II. While the right humerus is intact, the head of the left has crumbled away, the muscular markings of the shafts are well developed. The left radius and ulna are intact, but the corresponding bones on the right side are broken. Of the hands, the left is represented by the proximal row of the wrist bones, and the metacarpals of thumb, index, and middle finger; all that remains of right hand is the base of metacarpal of index finger.

Both femora show torsion and marked flattening of the upper third of the shaft—*platymeria*. In the tibia the angle of torsion is also well marked, the shaft flattened from side to side—*platynemia*, and there is a "squatting" facet on the anterior border of the lower articular surface; the right patella is complete, the left rather fragmentary. Of the bones of the feet there are the imperfect talus, calcaneum, and navicular of each foot, and in addition, belonging to the left foot, is a medial cuneiform, and a very stout metacarpal of the great toe.

3. TWO CIST BURIALS AT KIRKCALDY AND THEIR CONTENTS.

By V. GORDON CHILDE.

At the beginning of January 1931 a cist was exposed in excavating the site for a new abattoir at Kirkcaldy and was examined by Mr A. T. Richardson, convener of the Museum Committee. He reported (*Fife-shire Advertiser*, January 3rd and 10th) that the cist was orientated east and west, measured internally 4 feet by 2 feet 4 inches by 2 feet 6 inches and was composed of five slabs of freestone of a sort not belonging to the immediate vicinity. The floor was covered with a sprinkling of gravel. It contained a Beaker urn, a tanged blade of bronze with a hazel-wood haft, and a smaller bronze object like a pin, a flint flake, twelve conical buttons, and an elongated bead of "jet" and the hopelessly decayed remains of a skeleton.

Some days later a second cist was exposed only four or five feet away from the first. In it were a skeleton in better preservation and portions of a leather covering with a bone-hafted knife-dagger in its sheath; small fragments of woven fabric were adhering to the leather.

The relics were conveyed to the Museum, and the assistance of Mr Edwards, then Keeper of the National Museum of Antiquities, was secured in their preservation. But owing to various mishaps the full publication of the important discoveries was delayed, and it now falls to my lot with the kind permission and assistance of Mr Mackie, Curator of the Museum and Art Gallery, and Mr Richardson to establish a record of these important objects in so far as is now possible.

Contents of the First Cist.

The Beaker (Pl. VII. 2) has been made of poorly levigated clay in which considerable grits can be seen, but its exterior is covered with a layer of finer clay, probably a true slip, the surface of which has been smoothed or even lightly polished. The walls are nearly half an inch thick. The core is black, but the superficial layers have burned to a muddy brown, while the outer surface is reddish in patches. The interior is stained black. As reconstructed the vessel stands $8\frac{3}{8}$ inches high and measures about $7\frac{1}{8}$ inches across the rim, $6\frac{3}{4}$ at the belly, and $3\frac{5}{8}$ across the base. One inch below the brim the neck is encircled by a low but rather wide rounded collar in relief. Below this the neck is embellished by a zone of incised chevrons, composed of four parallel incisions, delimited just above the shoulder by a single horizontal line. A second horizontal line just below the shoulder forms the upper boundary of a second zone of ornament which extends almost to the base and consists of a net of lozenges formed by intersecting lines. All the decoration is made up of very irregular lines, lightly scratched in the slip with a rather blunt instrument, probably of bone. The patterns have been very carelessly executed: the lines are unevenly spaced, often overrun their frames, and have been emended in several places. In the upper zone the clay seems to have become already too dry when the lines were scratched so that their edges are sharp and almost raised, whereas in the lower zone they are smooth and neater. This might suggest that the vessel had been built up inverted from rim to base; or else that the artist proceeded in the inverse order.

The vessel is in many ways anomalous. It diverges from the standard beaker in its clumsy form and tasteless decoration, and above all in the decorative technique, the impression of a notched stamp or a cord being the normal method in this ceramic class. On the other hand the surface treatment—the use of a slip and the attempt at a reddish colour—is proper to the Beaker and to no other class of prehistoric pottery in

Scotland. Collars, though not so fat, are worn by several other beakers from Scotland and also from England and Wales, and recur on Dutch beakers too. The nearest general parallel would seem to be the vase, now lost, from Cairn Greg, Linlathen, Angus, which was also associated with a knife-dagger: on it, though the motives are different and even poorer, the ornamentation consists of two zones only filled with very sparse patterns and, judging from the woodcut, not executed with a toothed stamp or cord. Both vessels must rank as typologically late and degenerate.

The "bronze" blade (Pl. VIII, 1), now just over 4 cm. (1 foot 6 inches) long, is in reality a thin metal rod hammered out to form a blade; the point is missing and the edges are much corroded. A provisional restoration would give a total length of 4.5 cm. and a maximum width of 1.2. The tang, preserving the rectangular section of the original rod, is .4 cm. wide and not much over .2 cm. thick at the blade's base. It tapers off below, and the extremity is missing. When found bits of the hazel handle were adhering to the tang; it seemed to be 3 or 4 inches long, but was too far decayed for conservation.

Our little blade resembles though not precisely the fragment found by Herring in the Well Glass Cairn, Lurganlea, Co. Derry (*U.J.A.*, i. (1939), 176). The latter has been compared to the "Palmella points" of the Portuguese Copper Age (Childe, *Dawn of European Civilization*, 1939, fig. 125, 2), but the agreement is neither exact nor illuminating. The Irish specimen was associated with an admittedly late "Beaker-Food-Vessel" hybrid in a megalithic chamber with double portal that contained also several true Beakers. The whole complex gives an impression of lateness such as does the Beaker just described. The comparison gains in significance because another similar North Irish tomb at Loughash contained a Beaker, the closest parallel to which comes from Archerfield on the opposite shore of the Forth! (*U.J.A.*, iii. 79).

The pin or awl (Pl. VIII, 1) is now 2.9 cm. ($\frac{3}{4}$ inch) long, but is incomplete at both ends. It is .4 cm. thick at the widest point and tapers off in both directions. But one end is rectangular, the other round in cross-section. Perhaps one end was designed for insertion in a bone or wooden handle, while the other would serve as a pricker or tattooing needle rather than a pin. Similar ambiguous implements have been found with food vessels in four graves in Scotland,¹ but also with Beakers in England.²

The flint flake has been struck from a pebble of black flint. The crust is preserved on the upper surface, but the bulbar face is unpatinated. It is altogether devoid of secondary trimming.

¹ Balkalk, Tealing, *Proc. Soc. Ant. Scot.*, vol. xiv. p. 260; Mt. Stuart, Bute, *ibid.*, vol. xxxviii. p. 63; Kilmory, Bute, *ibid.*, vol. lxvii. p. 425; Mauchrie Moor, Arran, *ibid.*, vol. v. p. 185.

² Abercromby, *Bronze Age Pottery*, vol. i. p. 59.

The twelve buttons are all of the conical type with V-perforations classically associated with the Beaker complex throughout Europe. But half our specimens are oval rather than circular in plan, and the set is nicely graded in diminishing sizes as Pl. VIII shows. The largest measure 2.1 by 1.7 cm., the smallest 1.5 by 1.1 cm. and 1.3 by 1.3 cm. respectively.

In England such buttons are most often found in Beaker graves, but in Scotland one was found with a Food Vessel (*Proc. Soc. Ant. Scot.*, vol. lxxviii, p. 431), while another served as the clasp for a crescentic necklace—a type frequently associated with Food Vessels (*ibid.*, vol. lxxviii, p. 326). In no other case has so large an assemblage of buttons been reported. Their number and gradation in size would be appropriate to some more decorative use than fastening cloths. Very possibly they really did form part of a necklace or collar, but presumably sewn on to some fabric.

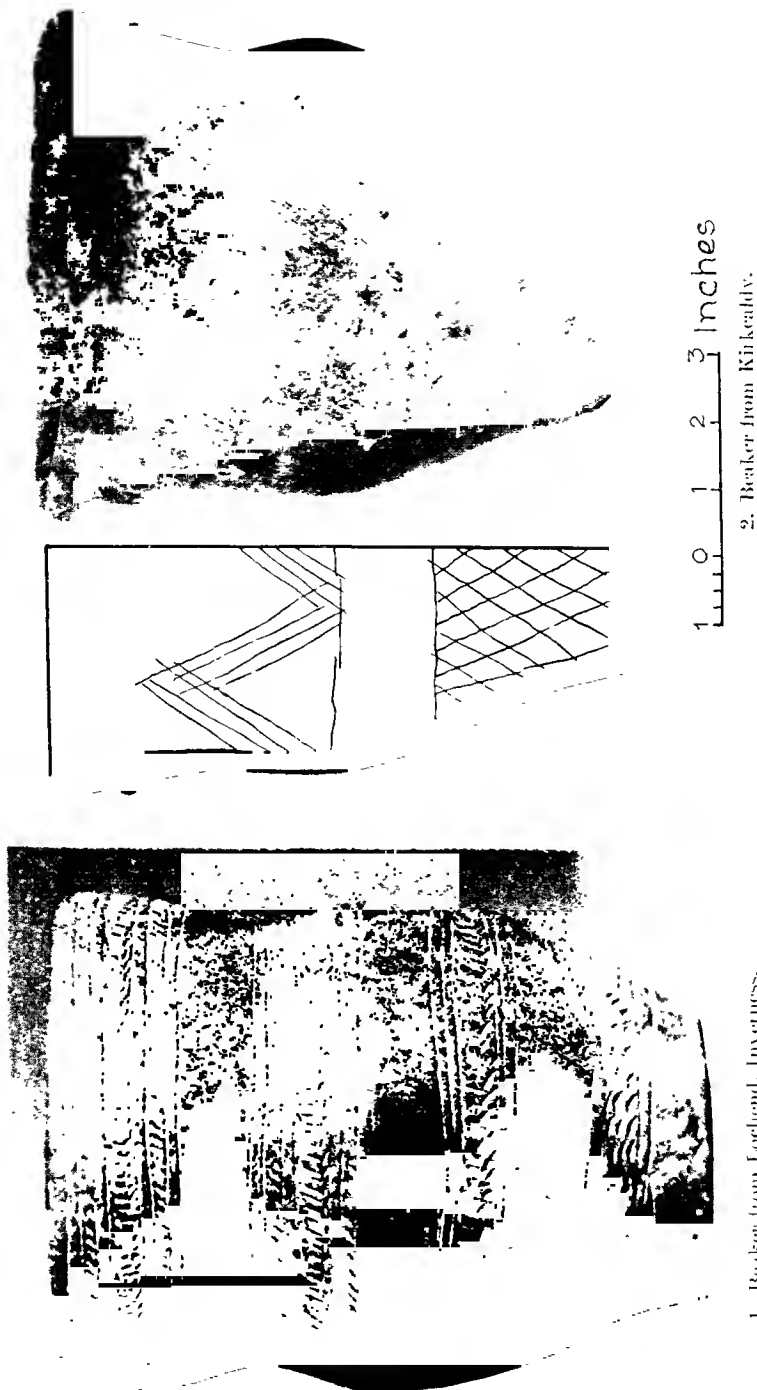
The single bead is now 2.4 cm. ($\frac{15}{16}$ inch) long and .85 cm. in diameter at the widest point; the string hole is not quite symmetric, measuring .3 by .25 cm. across, but seems to retain the width throughout its length. Such fusiform beads are most commonly met as components of the crescentic necklaces already mentioned, but are sometimes associated only with simple disc beads as at Greenknowe, Plusecarden (*Proc. Soc. Ant. Scot.*, vol. lxxiii, p. 224).

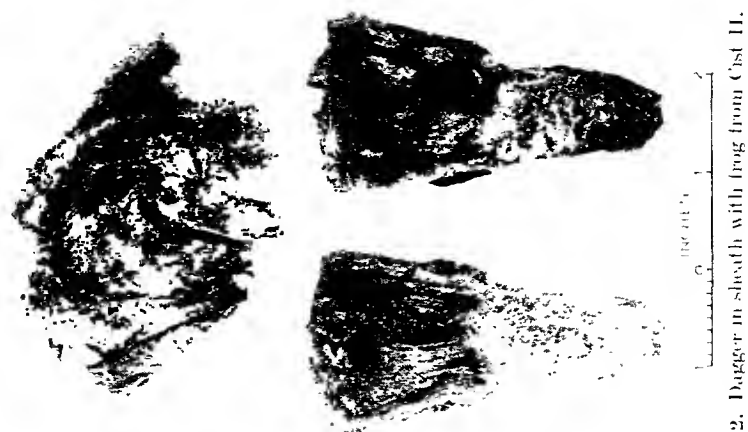
Hence all the relics are compatible with the deduction from the degenerate character of the vase that the burial belongs to the end of the Beaker phase.

Cist 2.

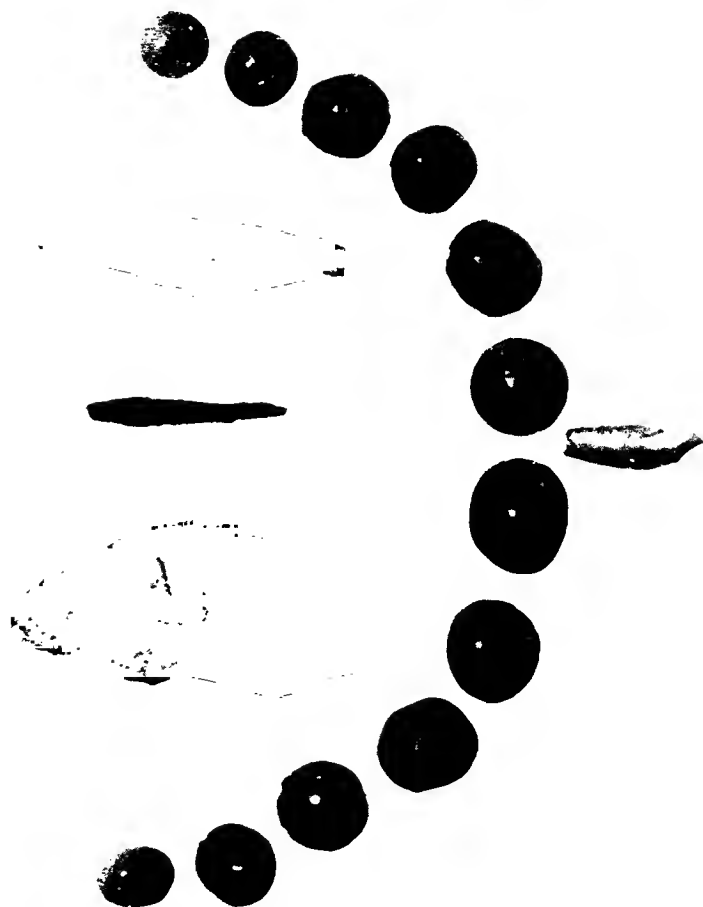
The *knife dagger* is much corroded and the point is missing altogether, but clearly belongs to the round-heeled class which generally has a blunted point. It is now 4 inches long, but was probably originally $4\frac{1}{2}$ inches; the width at the widest part of the butt is just over $1\frac{1}{2}$ inch. The blade is flat (fig. 1). The hilt was apparently attached by three rivets, of which the middle one is missing, together with the section of the hilt-plate into which it would have been fixed. The two surviving rivets are $\frac{7}{12}$ inch long and $\frac{3}{16}$ inch thick with heads, $\frac{5}{16}$ inch across, at both ends. The imprint of the hilt of the butt of the blade, with the usual semicircular indentation in the centre, is still clearly visible. When found parts of the actual hilt were still adhering to the metal. It was made of bone, according to the Royal Commission, but no portions of the material have been preserved.

The blade is now rusted on to its sheath of hide that is in such a fragile condition that it would be unsafe to attempt to remove it. This sheath (Pl. VIII, 2) appears to-day to consist of two distinct layers of hide. To form the sheath the strips have been simply folded over and the edges sewn

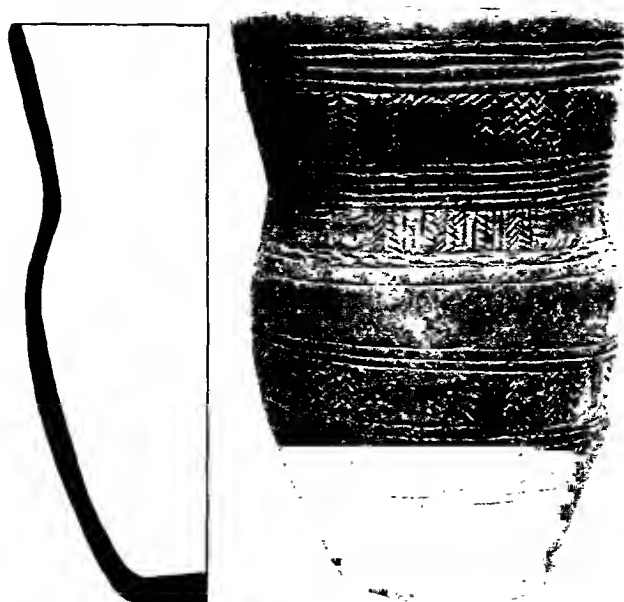




2. Dagger in sheath with frog from Cist II.



1. Grave goods from Cist I. 1.



1 0 1 2 3 Inches

1 Beaker from West Fenton.



1 0 1 2 Inches

2. Beaker from Nunraw.

together: in the half-inch of joint still intact there are five stitches, the thread being apparently sinew. It is just possible that the whole was originally a single strip of hide, folded double, and that the second fold along or parallel to the sheath's mouth has decayed away. In any case there is, now detached, part of a strip of hide, about $\frac{1}{2}$ inch wide, that if not really part of the main folded strip must have been sewn round the sheath's mouth to strengthen it. It is perforated with holes now $\frac{1}{4}$ inch long and $\frac{1}{8}$ inch wide in which fragments of a hide lace are still sticking. Stitches of the same size and material served also to attach to the sheath a leather frog. The remains of this interesting appurtenance are still 4 inches wide and $2\frac{1}{2}$ inches long. The fabric adhering to the leather was certainly woven from a vegetable fibre, but its exact nature could not be decided.

This is the thirteenth flat round-heeled riveted knife-dagger reliably recorded as found in a grave in Scotland. Of these, two only actually lay in the same cist as a Beaker—namely those from Callachally, Mull (*Proc. Soc. Ant. Scot.*, vol. ix, p. 537—in small fragments), and from Cairn Greg, Linlathen, already cited as containing the nearest parallel to our Beaker (*ibid.*, vol. vi, p. 98). The gold-mounted dagger from Collessie was found under the same cairn as two Beakers, but in a pit nearer the periphery than either of the Beaker graves and containing cremated bones. Like the gold-mounted dagger from Skateraw (*Proc. Soc. Ant. Scot.*, vol. xxvii, p. 7), it was more than an inch longer than ours. At Doune Road, Dunblane, a blade comparable in size to ours accompanied a Food Vessel (*Trans. Stirling Nat. Hist. Arch. Soc.*, vol. i, p. 28), while a gold mount presumably belonging to another accompanied a Food Vessel in a cist at Comuston Cross, Monikie (*Proc. Soc. Ant. Scot.*, vol. ii, p. 447).

Accordingly in Scotland knife-daggers in general and ours in particular are to be assigned to the Food Vessel phase or the very end of the Beaker period. In my Rhind lectures I gave reasons for believing that these two stages overlapped so that the terms are actually interchangeable. Now we have seen that the contents of Cist 1 are appropriate precisely to this phase. At the same time the spatial relations of the two cists strongly suggest contemporaneity. We have therefore two graves belonging at

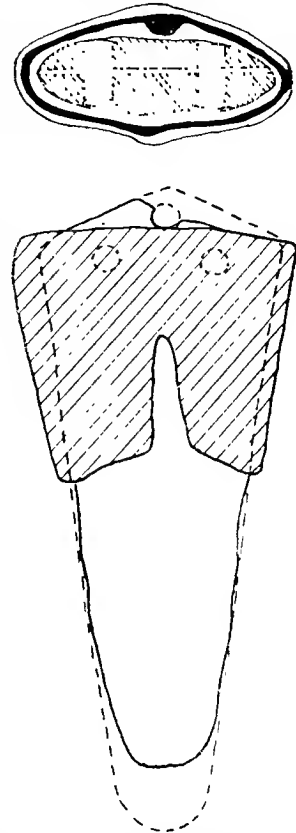


Fig. 1. Bronze Dagger in leather sheath from Kirkcaldy. $\frac{1}{2}$.

least to the same archaeological stage, of which No. 2 certainly contained the remains of a male, while the furniture of No. 1 is appropriate to a female. The graves therefore very probably represent the burials of man and wife, both persons of relative wealth and rank. It is not proved that the interments took place simultaneously, still less do the cists afford evidence for suttee. On the other hand it may be remarked that the practice of burying two or more persons in close proximity is more appropriate to the Food Vessel complex (save in Aberdeenshire where Beakers remained fashionable during much of the Food Vessel period).

4. A CIST CONTAINING A BEAKER URN AND SKELETAL REMAINS AT WEST FENTON, NEAR DREM. By A. J. H. EDWARDS, Director of the Museum.

In December 1943, when ploughing operations were being carried out on the farm of West Fenton, near Drem, in the Parish of Dirleton, East Lothian, the ploughman, Mr Thomas Dunnet, accidentally uncovered a short cist in which lay a Beaker Urn of clay and some skeleton remains.

The Honorary Secretary of the East Lothian Antiquarian and Field Naturalists' Society, Mr C. L. Bruce, very kindly sent information of the find to the Museum, and we are indebted to him and to the proprietor, Mr John A. Morrison, for particulars of the discovery.

The field in which the grave was found is known as Park Hills, and the site chosen for the burial some rising ground between $\frac{1}{2}$ and $\frac{3}{4}$ of a mile south-west of the farm of West Fenton, and a little to the north of the O.S. bench-mark.

The cist, the long axis of which lay east and west, consisted of four side-slabs and a cover stone. It measured 3 feet 4 inches in length, 1 foot 8 inches in width, and 1 foot 8 inches in depth. The cover-stone was rough and irregularly shaped and measured about 3 feet by 4 feet, with an average thickness of 4 inches. The side stones were smooth in comparison to the cover-stone, but the average thickness was much the same—4 inches.

The Beaker (Pl. IX, 1), which was found lying at the west end of the grave, is a very fine specimen of this particular type of Early Bronze Age vessel. It is made of a light red clay and measures $7\frac{7}{8}$ inches in height, $5\frac{1}{8}$ inches in external diameter at the mouth, $5\frac{1}{4}$ inches at the bulge, and 3 inches at the base. The exterior is apparently covered with a thin slip and is lightly burnished.

The decoration consists of seven zones of horizontal hyphenated lines executed with the "cog-wheel" or notched stamp and close set in groups of 5 to 3. Between these groups of lines the wider zones on the shoulder and below the bulge are left blank, while the rest are filled with a metopic

arrangement of stamped and sharply incised elements executed after the horizontal lines had been completed. Every other panel is left blank save for feathering of the borders; the filling of the remainder consists alternately of columns of stamped herring-bone motives and groups of vertical incised lines with obliquely cross-hatched interspaces.

The Society is indebted to Mr John A. Morrison, who has generously presented the urn to the National Museum of Antiquities of Scotland.

REPORT ON THE SKELETAL REMAINS by Prof. ALEXANDER
LOW, M.D.

Apart from the skull the bones of the skeleton are very imperfect due to decay. From examination of the skull it can be said that the skeletal remains indicate an adolescent from ten to twelve years of age.

The skull has crumbled away where its left side has lain in contact with the floor of the cist and, further, the lower jaw has decayed so that only part of the right ramus is intact.

TABLE III.—MEASUREMENTS IN MM. OF SKULL FROM SHORT CIST AT
WEST FENTON.

Glabello-occipital length	176	Orbital breadth, R.	41
Ophryo-occipital length	175	Sagittal arc, 1	124
Nasio-inional length	166	.. .. 2	126
Minimum frontal breadth	96 ap.	.. .. 3	117
Parietal breadth	142		— 367
Basibregmatic height	135		
Basinasal length	97	<i>Indices.</i>	
Nasialveolar length	90	Length-breadth	80.7
Nasialveolar height	65	Length-height	76.7
Nasimental height	105	Gnathic	92.8
Bizygomatic breadth	120 ap.	Total facial	87.5
Orbital height, R.	31	Orbital	75.6

There is no trace of closure of any of the cranial sutures, the basilar suture being still widely open. The teeth are of especial interest in arriving at the approximate age of the individual. In both upper and lower jaws the first permanent molar, the six-year-old tooth, is erupted and behind this the second permanent molar is just erupting—this usually takes place at twelve years of age. The second premolar in the upper jaw is just erupting, and in the lower jaw the first premolar and canine teeth are erupted. From the time of eruption of these teeth one can infer that the individual was between ten and twelve years of age.

Although the skull is young it already shows characteristics of the Bronze Age Beaker skull. It is broad—*brachycephalic*—with a high vault

and flattened occiput. The forehead and face are relatively broad and the orbits narrow—*microseme*.

The other bones of the skeleton are represented by a few fragments: four small pieces of ribs, part of left clavicle, shaft of right humerus, shaft of right femur, and five fragments of leg bones.

5. A BEAKER BURIAL AT NUNRAW, GARVALD, EAST LOTHIAN.

By Prof. V. G. CHILDE.

In January 1944 Mr Kellagher, ploughman at Nunraw Barns, displaced a flat stone in a field disclosing a cavity in which lay a Beaker urn and a human skull. The urn, the skull, and the femurs were withdrawn through the aperture, but the cist was not otherwise disturbed and information was sent to the Rev. V. C. Bennie of Garvald, who promptly informed the Director of the National Museum. At his request I repaired to the spot next day and opened the cist with the help of Mr and Mrs Bennie and Jack Forrest.

The field in which the grave was found lies east of the hill road from Garvald to Duns and close to the lodge of Nunraw House (O.S. East Lothian, 16 N.W.). The cist was at the highest point of a level terrace just over 600 feet above O.D. and at the very edge of a steep brae falling away southward to the Thorter Burn and a tributary thereof. No sign of a cairn could be discerned, but the field has been under plough for many generations so that any such superficial monument might have been completely obliterated. The capstone was an irregular diamond-shaped slab, about 8 inches thick with a maximum length of 4 feet and width of 5 feet, so that it must originally have covered the cist completely. The latter was orientated roughly east and west, the major axis reading 58° E. of true N. It was composed of six thin sandstone slabs, one at each end and two on each side, all deeply planted in the sandy gravel of the subsoil, but supporting in places small horizontal slabs of the same material. The eastern headstone was 18 inches long and 22 inches high; the western one, 21 inches long and of similar height, was supplemented by a second slab outside it that could not be measured without destroying the whole structure. The distance between the headstones along the southern side of the cist was exactly 30 inches, but the side slabs overlapped to an extent of 5 inches. The eastern upright was 22 inches high and over 18 inches long. The western upright, about 18 inches high, was set behind the eastern, so that of its total length of 16 inches only 11 were exposed between the extremity of its neighbour and the western headstone. Three small slabs laid horizontally on its upper edge made up the deficiency in its height. On the northern side the western slab was exposed for a length of 25 inches. Behind and over-

lapping its eastern end for a couple of inches stood another stout upright of rather less height, but the actual face of the cist at the east end was formed by a thinner and narrower slab, only 9 inches wide, set between the stout upright and the north end of the headstone and abutting against the east end of the west upright, with which it was not quite in line. Above it came a layer of slabs as in the diagonally opposite corner.

The skeleton reposed on a very rough pavement of coarse pebbles only 18 inches below the underside of the capstone. The pebble bed rested in turn upon the much sandier subsoil, into which the upright slabs had been embedded to a depth of 6 or 7 inches. As stated above, the skull and femurs had been extracted before the capstone was lifted, but fortunately the lower jaw and one knee cap were still *in situ*. These showed that the body had been interred facing south with the head at the west end of the cist, and lying on its right side in a strictly contracted attitude with the knees drawn up to the chin and the feet close to the pelvic girdle. The arms were similarly bent up to bring the hands close to the face. At the west end of the cist behind the skull stood the Beaker intact. A small unworked flake of black flint was found among the pebbles of the pavement under the pelvis. No other relics were disclosed by a careful scrutiny of the cist's contents.

REPORT ON THE BEAKER by A. J. H. EDWARDS,
Director of the Museum.

The Beaker (Pl. IX. 2) is intact and is made of greyish clay that is turning to brownish red on the outer surface. The surface is lightly burnished inside and out. The vessel measures 6 inches in height, $5\frac{3}{8}$ inches in external diameter at the mouth, $4\frac{5}{8}$ inches in width at the bulge, and 3 inches in diameter across the base; the lip is bevelled downwards towards the interior for $\frac{5}{16}$ of an inch.

The surface is decorated with three zones of ornamentation separated by two narrow plain zones. On the exterior edge of the rim the decoration consists of a series of oblique dashes running from left to right. With this exception, the three zones of decoration are similar and consist of a row of vertical lines with, above and below, a multiple horizontal chevron pattern. The vertical lines and the chevrons are bordered, above and below, by two horizontal lines. In the lowest zone the lines below the last row of chevrons have been omitted for lack of space. The decoration of the vessel has been boldly executed entirely with the notched stamp or "cog-wheel," giving the well-known hyphenated line effect. The urn is now in the Museum, having very kindly been deposited on loan by the proprietor, Mr Marcus Spurway.

REPORT ON THE SKELETON FROM SHORT CIST AT NUNRAW.

EAST LoTHIAN. By Prof. ALEXANDER LOW, M.D.

The skeleton is fairly complete, though a number of the bones are imperfect due to portions having decayed.

The Skull.—The skull with lower jaw is well preserved, and is of especial interest in that from the open sutures and eruption of the teeth it can be inferred that the skeleton is that of a child six to seven years of age. At this early age neither sex nor racial characteristics are differentiated.

All the cranial sutural lines are open, including the basilar suture. The first permanent molar teeth in upper and lower jaws—the six-year-old

TABLE IV.—MEASUREMENTS IN MM. OF SKULL FROM SHORT CIST AT NUNRAW MAINS, EAST LoTHIAN.

Cubic capacity	1070 c.c.	Sagittal arc. 1	115
Glabello-occipital length	160	.. .. 2	115
Ophryo-occipital length	160	.. .. 3	100
Nasion-opisthion length	142		— 330
Parietal breadth	134	Length of foramen magnum	35
Minimum frontal breadth	87	Transverse arc	286
Basibregmatic height	123	Circumference	466
Basinasal length	87		
Basialveolar length	77	<i>Indices.</i>	
Nasimental height	85	Length-breadth	83.75
Nasialveolar height	52	Length-height	76.88
Bizygomatic breadth	102	Breadth-height	91.79
Bigonial breadth	78 ap.	Frontal	64.93
Nasal height	37	Total facial	83.33
Nasal breadth	20	Nasal	54.05
Orbital height, L.	30	Orbital, R.	93.75
Orbital breadth, L.	32	Orbital, L.	93.75
Alveolar length	37	Alveolar	129.72
Alveolar breadth	48		

teeth—have just erupted, while the second permanent molars are seen in the depths of the jaws. The permanent central incisor teeth are just appearing and are usually present by about the seventh year; all the other teeth present are deciduous—baby teeth.

The skull is broad and high relative to length and with flattened occiput. As regards the characters of the face, it is short and relatively broad; the orbits are large and almost square and the nasal aperture broad.

It is of interest to note that a thin layer of brown material was in close contact, especially with the flat bones of the skull. On microscopic examination there was no evidence of its being hair, so a specimen of the material was sent to Dr E. V. Laing, Lecturer in Forestry at the University, and his report is appended.

Bones of Trunk and Limbs.—The bones of the spine are represented by the first two cervical, the five lumbar vertebræ, and the upper three segments of the sacrum. Of the two hip bones the two iliac bones are present and can be articulated with the sacrum; the two ischial bones of pelvis are imperfect. There are also a number of fragmentary ribs and vertebræ.

Of the upper extremities there are a right clavicle and a small piece of right shoulder blade; lower three-fourths of shaft of left humerus; each forearm represented by the radius and ulna without epiphyses and two metacarpals and two phalanges of hand.

Of the lower extremities there are the femora with epiphyses—each measures 280 mm. in total length; the shafts of the two tibiæ and imperfect shafts of the two fibulæ; the left talus and calcaneum and four metatarsals and two phalanges of foot.

REPORT ON MATERIAL ADHERENT TO THE SKULL FROM SHORT CIST AT
NUNRAW MAINS, EAST LOTHIAN. By E. V. LAING, M.A., D.Sc.,
Lecturer in Forestry, Aberdeen University.

The material is composed of extremely fine roots which have very long root hairs, and I am inclined to think they are the roots of grass. There is also amongst the material a good deal of fungal hyphæ and there are a few two- to four-celled spores which are known to belong to a soil fungus. It is very difficult to name a plant by its root unless there is something very characteristic. I would venture to suggest that the grass came from a Fairy Ring. This impression is based on the quantity of fungal hyphæ.

IX.

SOME RELICS FROM KILDALTON, ISLAY. BY CAPT. R. B. K. STEVENSON, F.S.A.Scot., KEEPER OF THE MUSEUM.

In course of the clearance of the Museum's cellars in 1939 a box was discovered containing relics from the excavation of a cave near Kildalton House, Islay. These relics were not described, but only summarily enumerated, in the account given in our *Proceedings*, vol. xxxii., 1897-8, pp. 36-9, some fourteen years after the excavation: for, to quote Sir Arthur Mitchell, "the collection of fragments has been lost, and repeated efforts to find it have been unsuccessful." He illustrated an axe and arrow-head which had been kept apart, and which have long been on exhibition in the Museum.

The collection newly discovered in the box consists of:

1. Pounders: a heavy pebble, 5 inches long and $2\frac{1}{2}$ inches in diameter, abraded at both ends, one end having two "facets": a smaller pebble, 4 by $2\frac{1}{2}$ by $1\frac{1}{4}$ inches, abraded obliquely at one end: another of more irregular shape, $7\frac{3}{4}$ by $2\frac{1}{2}$ by $1\frac{1}{2}$ inches, broken at the ends, which appear to have been abraded: and finally a purely natural unused elongated pebble of softer stone.

2. Pot lids: one $7\frac{1}{2}$ inches across, the other $4\frac{1}{2}$ inches.

3. Flints: seven waste fragments of various colours, and one of quartz; three utilised fragments and one of chert: a square scraper, $1 \times 1\frac{1}{8}$ inch and $\frac{1}{2}$ inch high: a hollow scraper, $1 \times \frac{5}{8}$ inch and $\frac{1}{2}$ inch high: and a broken knife tip reused as a scraper.

4. Three samples of earth and four pieces of charcoal (identified by Mr M. Y. Orr as hazel and willow), some small lumps of ferruginous stone, and a small lump of soft ruddle.

5. The "two objects regarded as bone pins formed out of the leg bones of birds," which may be entirely fortuitous; also two splinters and some tiny fragments of animal bone, one splinter being possibly deliberately sharpened.

6. Numerous bones, kindly listed by Miss M. I. Platt (Appendix).

7. The most important group is, however, the fictile. Sir Arthur Mitchell counted 291 fragments, "all of which were small": the box contained some 220, and in addition about half a pot carefully restored. (The presence of this pot makes the disappearance of the collection somewhat strange.) In the account of the excavation all relics are said to have come from a single layer of dark soil about 2 feet thick. Black traces are still

adhering to some sherds, but almost all have a soft white calcareous deposit adhering to the sides and edges.

(a) The majority of the sherds are from the walls of large brown vessels, of which there are also rims and bases. The fabric is coarse, with grits and

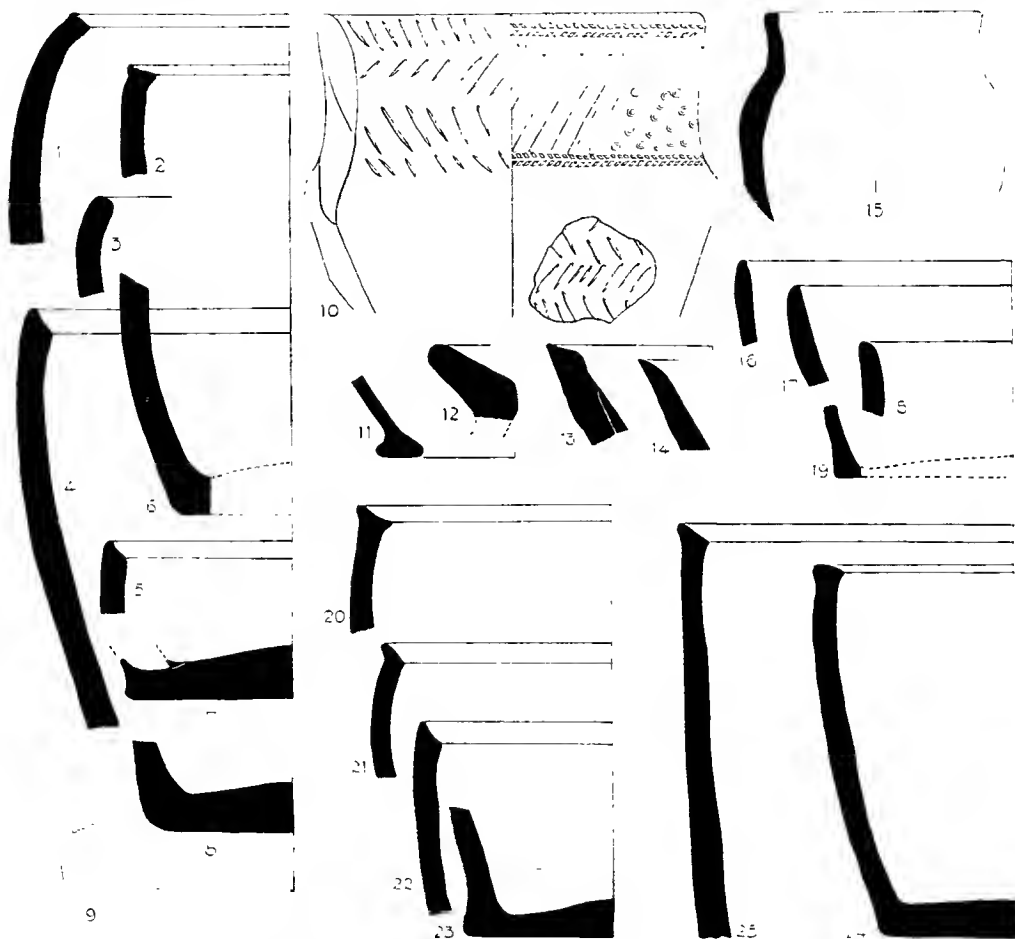


Fig. 1. Pottery from Kildalton (1-19); Covesca (20-24); and Ronaldsway (25), $\frac{1}{2}$.

small stones often giving the outer surface a humpy appearance. It is not markedly friable. In the main this fabric belongs to the cinerary urn tradition. The vessels seem to have been bucket-shaped, incurving at the top with flattened or hollow-bevelled rims, more rarely rounded (fig. 1, 1-5). The rim diameters range from $4\frac{3}{4}$ to $8\frac{1}{4}$ inches. Two sherds are part of a most unusual rim, whose diameter could not be ascertained (fig. 1, 12). It is very sharply everted, forming a sloping brim. Of the flat bases two have

a marked external cavetto and outward splay, and two are simply rounded: diameters $4\frac{3}{4}$ to $5\frac{3}{4}$ inches (fig. 1, 6-9). If the largest piece of base belongs, as seems quite likely, to the partly restored pot, its dimensions would have been height 8 inches, rim diameter $8\frac{1}{4}$ inches, maximum diameter $8\frac{5}{8}$ inches, base $5\frac{3}{4}$ inches (fig. 1, 4 and 9).

To a pot of similar fabric, with a slightly better finished surface, belong four sherds: two from the rim, one from close to the rim to the shoulder, and one just below the shoulder, there being, however, no "fits." The drawing, giving a suggested reconstruction (fig. 1, 10), shows the upper part of a vessel (rim diameter 6 inches) with a rounded and slightly outturned rim merging into a concave neck, while below a projecting shoulder the wall slopes down straight. The outside is highly decorated: first a close herring-bone of fine cuts on the lip, then four lines of twisted cord in pairs with alternate twist, then alternating panels on the neck consisting of oblique scores and reed-end impressions, and another pair of cord lines: below the neck the body had been covered with a herring-bone pattern of incised lines, only about $\frac{3}{8}$ inch or less long, but up to $\frac{1}{16}$ inch deep. The inside of the neck, despite its steepness, was decorated with three to four rows of lines like those on the body.

Two other sherds of the same coarse fabric may be noted as having one a deep, and the other a shallow, impression of a loose coarse cord: both impressions are probably accidental.

A base sherd of thinner quality, with a somewhat laminated structure, has a very pronounced outward splay below the external cavetto (fig. 1, 11). The inside is curved round as if there had been no bottom: it may be a sort of "false rim" due to an otherwise unknown variation of building. Another sherd of much the same fabric has some large grits, and on the outside it is decorated with roughly parallel scored lines.

(b) A small vessel, of which only the rim and upper part of the body remain, is made of a practically gritless fabric that had, however, some vegetable temper. It is finely laminated and rather soapy to the touch. The outside is dark brown, and smooth but covered with fine streaks. The inside is reddish with less finish. The rim is flattened, and below the vertical neck the wall curves out to form a globular body (fig. 1, 15). A sherd of a similar globular-sided pot is less well finished.

(c) A small sherd of buff vegetable-tempered ware, rather like that from Bronze Age Jarlsbof.

(d) A score of sherds are again of a quite different fabric. The body is fairly thin and hard, sometimes with a considerable amount of small grit. The surface is even and sandy to the touch. They are mostly black. The rims are simply rounded (diameter $4\frac{3}{4}$ inches to $8\frac{1}{4}$ inches), and the walls upright (fig. 1, 16-18). One rim (fig. 1, 17) has a perhaps insignificant line traced outside parallel to, and $\frac{3}{16}$ inch below, the lip. The only base sherd

(diameter $5\frac{1}{2}$ inches) has an almost vertical wall with slight external cavetto (fig. 1, 19). These sherds suggest an Early Iron Age fabric.

(e) Eight pieces that at first sight seem to belong to clay moulds, are rather puzzling. Those that belong to the mouth suggest that it had been as much as 6 inches in diameter (fig. 1, 13), while a piece from farther down is concave as if for casting a plain spherical surface some $3\frac{1}{2}$ inches in diameter. None of the pieces seem to be for casting flattish objects, nor are there pieces with tenons or mortises or other features usual to two-piece moulds. On the other hand, the grey inside and the red outside are quite unlike a crucible. If the pieces, as seems likely, all belong to one object, it may have been a vessel measuring internally about $4\frac{3}{4}$ inches across and $2\frac{1}{2}$ inches deep, into which molten metal was poured.

A hard grey-black sherd of smooth grey-black fabric (fig. 1, 15) may be mentioned at this point. Its real character is not clear. The rim is very sharp.

(f) There are also some bits of fused vitreous material, one containing lumps of quartz, and others forming part of lumps of burnt clay. These may be the remains of a pot used as a crucible. In addition there are some lumps of unfused burnt clay. Finally there is a piece of friable grey fused substance, a little like cement in appearance.

To sum up, the leaf-shaped arrowhead of brown flint, and probably also the polished axe-head of black and brown igneous rock, seem in comparison with the rediscovered pottery to have been stray in the deposit, and can in consequence no longer be treated as if found truly associated with one another. The pottery itself, for all that it is said to have come from a uniform black stratum, may belong to several periods.

The grass-tempered wares are too scanty and unusual for much comment, but the fabric of the little pot (fig. 1, 14) is distinctly reminiscent of the "soapy ware" from the caves and promontory fort just across the sea at Ballintoy, Co. Antrim, which has been dated to the eighth-ninth century A.D.¹

The thin ware with fine grit temper has an "Early Iron Age" appearance, the fabric being similar to that of much of the pottery from sites such as brochs and earthhouses. This fabric, however, as Prof. Childe² has pointed out, is actually less common in the lower levels at Traprain Law than pottery partaking of the cinerary urn tradition, as do the majority of the sherds from the Islay cave.

These, and with them probably the "mould," the poor flints (none of them of the brown translucent material of the arrowhead), and perhaps the pot lids and pounders and the animal bones—except the presumably

¹ *Ant. J.*, vol. xvi. p. 197.

² Childe, *Prehistory of Scotland*, p. 250. His observation is confirmed by S. H. Cruden's more secure stratified finds, *Proc. Soc. Ant. Scot.*, vol. lxxiv. p. 57 f.

intrusive domestic cat—may be the remains of a “bucket-urn” people, whose importance in Scottish prehistory is still obscure. In her report on the excavation of the Sculptor’s Cave, Covesea, Miss Benton¹ said: “Almost the only shape (in the Bronze Age stratum) seems to be a pail-like cooking-pot with a rim which projects slightly inside. The pail is indigenous to Great Britain. The rim is essentially like those of cremation urns. I am not aware that the two have been found in conjunction in this country.” This conjunction now reappears in the Islay sherds, and the fabric is, in a general way, similar. Professor Childe has stressed the tendency of some Covesea rims to flattening (as in fig. 1. 24), but others (fig. 1. 20-22) are strongly similar to the Islay rims. The similarity in bases (fig. 1. 23-24) is less significant. Partly in consideration of the rim flattening, Professor Childe (*Prehistory of Scotland*, p. 172) has suggested a “Hallstatt” date for the Covesea pottery and equated it with sherds from Old Keig and elsewhere. The fabric of many of these, however, and particularly of the quantity of similar pottery from Loanhead of Daviot,² could hardly be taken for cinerary urn, but is rather what I have termed “Early Iron Age” fabric. More recently Professor Childe³ has stated that the date of Old Keig ware is uncertain. It may, therefore, be suggested that Old Keig ware may represent a fusion of traditions comparable with the overlap and fusion at Traprain.

The Islay and Covesea pottery, although from opposite sides of Scotland (*Prehistory of Scotland*, pp. 187-8) may represent one of the streams which met at Traprain and Old Keig. Their very similar rims (fig. 1. 1-5 and 20-24) appear to be less devolved than those from Traprain (*Prehistory of Scotland*, fig. 79), than which they are both probably earlier. This dating may be confirmed by the character of the decoration of the strangely shaped, if correctly reconstructed, pot (fig. 10) which suggests contact between the bucket-urn and purer cinerary urn people (*Prehistory of Scotland*, p. 170).⁴ This is not inconsistent with Professor Childe’s comparison with coarse “Hallstatt” pottery in England. The Covesea and Islay pottery may now be regrouped with some isolated instances of undecorated non-cinerary bucket-urns, despite differences in size. A large urn from Glenluce sands, apparently from a habitation site, has the characteristic incurve of the wall at the top and a hollow bevelled rim which, although peculiar in detail, is in essence the same as examples from the two caves.

Through the kindness of Professor Maher, I have a photograph of two complete urns found at Knockaholet, near Armoy, Co. Antrim, which also appear to belong to the same group as the sherds from Islay.⁵ I am much

¹ *Proc. Soc. Ant. Scot.*, vol. lxxv, p. 189.

² *Proc. Soc. Ant. Scot.*, vol. lxxix, pp. 197 ff.

³ *Annual Report*, Institute of Archaeology, University of London, 1939. The North of Ireland sherds mentioned in the *Prehistory of Scotland* were associated with the “soapy ware” cited above.

⁴ Childe, *Prehistory of Scotland*, p. 170.

⁵ H. C. Lawlor, *Irish Naturalists Journal*, vol. v, pp. 171-2.

indelbted to Mr Arthur Deane, F.R.S.E., Curator of the Municipal Museum and Art Gallery, Belfast, for this reference and other particulars, and for permission to mention in this connection the urns, which are in his custody.

Professor O'Riordan¹ has illustrated and described a fragmentary urn found at Cush, Co. Limerick, the greater part of whose rim has an internal hollow bevel with an internal overhang. This part, he says, has been made by pinching the clay from the inside between thumb and forefinger, "but along a small portion of the circumference the clay had been pinched from outside, giving an external moulding on a horizontal rim," to which our fig. 1, 2 approximates. These variations in rim form do not thus necessarily denote real differences in idea.

Mention should further be made of vessels from a domestic site at Ronaldsway, Isle of Man.² Some had cordons applied close below the rim, in one case with a hanging semi-circle as well: also the fabric is quite unlike that of vessels we have cited so far, being more even without big grits and without burnish. The shape, however, of four partially restorable undecorated pots belongs clearly to our bucket-urn series. They range from 10 inches in diameter (fig. 25) to 5½ inches, one having a flattened rim. The westerly distribution of these find spots may be more than fortuitous.

In the *Proceedings of the Royal Irish Academy*, vol. xlvii., 1942, published after this paper was written, Dr Hencken discusses the same wares and argues for a movement the reverse of that suggested here. It should be noted, however, that Scarborough pottery is paralleled in Scotland by Jarlshof rather than Covesea.

APPENDIX. --REPORT ON THE BONES AND SHELLS. By Miss M. I. PLATT.

Red Deer.—Fragments of metacarpal, metatarsal, phalanges, jaws, humerus.

Ox.—Jaws (fragments), molars, scapula, ribs, ulna, metacarpal.

Pony.—Molar.

Pig.—Fragments of scapulae, humerus, jaws, phalanx.

Sheep.—Jaws, molars, ribs, metacarpals, radius and ulna, phalanges.

Domestic Cat.—Femurs, tibia, radius, humerus, ulnae.

Fox.—Lower jaws.

Shells.

1. *Pecten maximus* (L.), one valve.
2. *Dosinia exoleta* (L.), one valve.
3. *Buccinum undatum* (L.) var. *littorale* King, one shell.
4. *Littorina littorea* (L.), one shell.
5. *Patella vulgata* (L.), six shells.

¹ *Proceedings Royal Irish Academy*, Sec. C, vol. xlv., 1939-40, p. 167.

² *Antiquaries Journal*, vol. xx, pp. 78 and 85. I have to thank Mr S. J. H. Neely and the authorities of the Manx Museum for permission to give these further details.

NOTES.

I. AN ADDENDUM TO BROOK'S ACCOUNT OF SCOTTISH MACES.

In his paper to the Society in 1892, Alexander J. S. Brook, F.S.A.Scot., described the "Lord President's or Old Exchequer Mace."¹ Now, among the *Treasury Warrants* in H.M. General Register House there is the following bill and receipt:—

"May 29: 1668

Bought of John Wendouer goldsmith one guilt mace,	£.	s.	d.
weight, 230 ozs. at 10s. p. oz.	115	00	00
One leather case lin'd with bayes to putt the mace in	001	05	00
	116	05	00

"June 9th 1668. Received then of Mr. John Kirkwood the sum of one hundred sixteene pound five shillings by order of the Right Honble. the Earle of Louderdale in full of this bill, I say received by me

£116 05s.

Jo: Wendouer.

[*Endorsed*] Bill and Receipt of the mace £116 5s. sterl."

This document, which was not accessible to Brook in 1892, when his article was written, reveals certain new evidence on the subject. The mace paid for in 1668 corresponds approximately in weight with the mace which he describes as the "Lord President's or Old Exchequer Mace," presently in use in the First Division of the Court of Session. It weighs 232 ozs. 8 dwt. and bears the London hallmark for 1667. The maker's initials, however, are said (by Brook) to be "T. H.": but if it is identical with the mace specified in the above receipt the initials should be "J. W." for John Wendouer who was the goldsmith. "T. H." may be a misreading. The hallmark is now so much defaced that a positive pronouncement as to the initials is almost impossible. With some diffidence "J." might be read in preference to "T."

Brook comes to the conclusion that the "Lord President's or Old Exchequer Mace" belonged to a high official, probably the Lord Treasurer. Probably it did: he and the Lord Chancellor were the only two officials at that time who bore such elaborate state maces, and it could not belong to the Lord Chancellor, for his mace differed in certain particulars. These are clearly shown in three engravings of contemporary portraits of the chancellors, 1685-1704 (*op. cit.*, 504), in which the official mace is displayed. There the

¹ *Proc. Soc. Ant. Scot.*, vol. xxvi, p. 502.

orb and cross are supported on four arches, and the initials of the sovereign under whom the respective chancellors held office are engraved on the head. The first bears the initials I. R., the second W. R., and the third A. R. The "Lord President's or Old Exchequer Mace", however, has eight arches and the royal initials on the head are C. R. By a strange misconception Brook mistook the subjects of the portraits for those holding the office of Lord Treasurer (although their official title is plainly indicated on the engravings), and regarded the mace there reproduced as belonging to that official. He explains away the difference as to the initials by stating that "such an alteration as this might naturally be expected from the artists" and not of much importance. That may be, but it is remarkable that different artists (for the engravings were not all by the same hand) should be so consistent in their licence. There is no explanation, however, of the difference in the number of arches. Indeed, Brook's own illustration of the "Lord President's or Old Exchequer Mace" (*op. cit.*, pl. xi, fig. 1) shows, as in fact there are, eight arches, although in his description of it he fails to notice this and states that there are "four arches bearing the orb and cross."

This confusion would surely have been avoided had Brook realised that before the Union of 1707 these two officials, the Chancellor and the Treasurer, each had a mace similar in size and style except for the differences to which attention has been drawn. Further proof that each official had his own mace is found in another Treasury warrant (which was also apparently not available to Brook). It is dated 20th March 1701, and authorises payment of an account, 23rd December 1699, to Collin Mackenzie, goldsmith, for "mending of My Lord Chansler's Mace," partly in silver and iron, and for "mending of the Theasurie Mace being aded to it a bar for the Coronet with a plate of silver for the suporting of the Glob." Various other references to the Chancellor's mace are found, *e.g.* in the "Method and Manner of Ryding the Scottish Parliament" (*Maitland Club Misc.*, iii, 123, 135), but the Chancellor's mace is entirely ignored by Brook: even when he refers to missing maces (*op. cit.*, 513) he fails to mention it.

The question which naturally arises, therefore, is—if the mace now in use as the President's mace in the Court of Session was the Treasurer's mace (as appears likely), what has become of the Chancellor's mace? Some light on this question is shed by a very pointed entry in item 18 of an inventory of the "Exchequer Rooms and other Offices," dated 1714, printed in our *Proceedings*, vol. lxii, p. 191, thus "The Chancellours Great Mace is att present in his own possession." The Earl of Seafield was the Chancellor at the time of the Union and apparently he retained the mace then and still had it in 1714. Recently a search among the Seafield possessions and records, very kindly undertaken by the Seafield Trustees, failed to reveal any further trace of the mace; and further investigations at Westminster, where it may have been lodged, likewise proved negative. May be it perished

there in the fire of 1834. If by good fortune this important and venerable relic of our Scottish Parliament is ever recovered perhaps it may find its way back home to Parliament House and the Court of Session. There it would be a fitting neighbour to the Treasurer's mace and a more historically appropriate and correct symbol of authority in the hands of the Lord President, for whereas the Treasurer's precedence was confined to the Exchequer court, the Chancellor was not only the presiding official of parliament but his precedence extended to all other courts, including the Court of Session (*Acts Parl. Scot.*, 1696, x. 6b).

C. T. McINNES.

2. A BRONZE AGE BURIAL CIST AT BONHILL, DUMBARTONSHIRE.

In February 1943 a stone cist was discovered in Strathleven Sand and Gravel Quarry, Bonhill, in land owned jointly by Brigadier-General Sir Norman Orr Ewing, Bt., C.B., D.S.O., A.D.C., V.L., and by Captain David Orr Ewing, D.S.O., R.N., and leased by the Alexandra Transport Company. The discovery was at once reported by Mr Archibald Maclean, Chief Engineer of the Alexandra Transport Company, to Mr Edwards, Director of the National Museum of Antiquities, Edinburgh, and at his request I visited the site to make a record of the remains. Unfortunately these were in a very fragmentary condition, but their original appearance and position were made clear from information supplied by Mr Maclean.

The cist was found at a depth of 6 feet below the modern surface, in a cut made from 30 feet below ground level (see Plan). It was smashed by the mechanical excavator, but the fragments of stones and bones were carefully collected. When the stones were fitted together, they proved to have formed the sides and bottom of a small cist about 2 feet square. The slabs were each about 2 inches thick. The cist contained burned bones but no associated objects, and had been covered by a large slab, 3 feet square and 3 inches thick.

By permission of the joint owners, Brigadier-General Sir Norman and Captain David Orr Ewing, the remains were removed to the Hunterian Museum, Glasgow University, for examination. Dr Ethel Currie, of the Geology Department, identified the stones as brownish-yellow sandstone. It had probably been got locally as the site lies in the Old Red Sandstone area. Professor Blair, Professor of Anatomy at Glasgow University, stated that the bones, although very fragmentary, included a few that were identifiable as human. These belonged to an adult of rather small build (see Appendix).

The find at Bonhill, then, was a short cist of Early Bronze Age type containing cremated human remains. These had not been placed in the usual receptacle, a Beaker or Food Vessel, but had simply been laid in the cist. The absence of a receptacle may possibly account for the small size

of the cist, and for the provision of a stone bottom—a rather unusual feature.¹ The cist appears to have been a “flat grave,” as no signs of a mound or cairn were noted.

Mention may here be made of the discovery of another burial cist in the same sand quarry in the year 1940. The cist was found about 160 yards

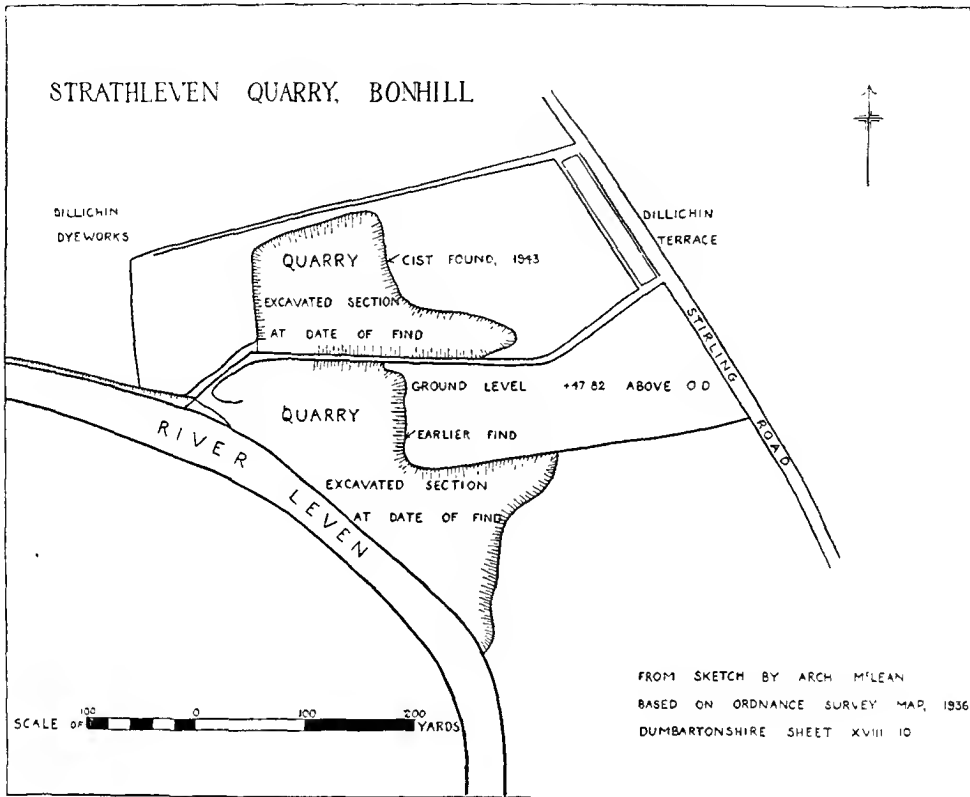


Fig. 1. Plan of Bonhill Site.

to the south of the 1943 find (see Plan), and contained a human skeleton. The discovery was examined and recorded by Dr S. M. K. Henderson, Curator of the Dept. of Archaeology and Ethnography in Glasgow Art Gallery and Museum, and the bones were removed to the Art Gallery. Publication of the find has, however, been delayed by Dr Henderson's absence on war service.

ANNE S. ROBERTSON.

¹ Childe, *Prehistory of Scotland* (1935), p. 106.

APPENDIX.—REPORT ON THE BONES. By Professor D. M. BLAIR.

The only parts definitely identifiable as human are:

1. Part of metacarpal head, almost certainly right half of 4th or 5th left metacarpal.
2. Upper intervertebral articular facet of cervical vertebra with small part of transverse process.

The remainder of the fragments, mostly of minute size, comprise small bits of ribs, vertebræ, and long bones of limbs, with some tiny bits of uncertain nature. These cannot be identified as human with certainty, but again there is nothing to suggest they are not human. It is not possible to give an estimate of age or sex in this case beyond saying that the bones have come from an adult of rather small build.

I should add that the fragments which I have been unable to identify as positively human have certainly come from a mammalian skeleton of approximately human size.

3. CISTS ON THE FARM OF WOODFIELD, NEAR STUARTFIELD. OLD DEER, ABERDEENSHIRE.

On May 11th 1943, in company with Emeritus Professor Alexander Low, I visited the farm of Woodfield, near Stuartfield, Parish of Old Deer. The owner of the farm, Mr James Slessor, while tilling a rising mound in a field situated about 300 feet above sea-level, came upon sand, and proceeding to excavate some for road-making, unearthed flat stones, the covers of two cists. It is to be noted that this is the usual site for stone cists, and the usual cause of their discovery.

The long axis of the smaller cist was directed from south-east to north-west. Its inside measurements were as follows: Length $23\frac{1}{2}$ inches, breadth $6\frac{1}{2}$ inches, depth 8 inches, depth from surface of ground to cist 12 inches. The side stones were from 4 inches to $7\frac{1}{2}$ inches thick, the end stones 3 inches to 4 inches thick. The covering stones were $22\frac{3}{4}$ inches \times $20\frac{1}{2}$ inches \times $2\frac{3}{4}$ inches thick.

This small cist had contained a small urn, only the base of which, $2\frac{3}{4}$ inches in diameter, was in the possession of the farmer. It had five horizontal lines impressed within $1\frac{1}{4}$ inch of the base, and some impressed markings between the lines. The clay on the inside of the urn was black, and on the outside the usual pale-brown colour.

The long axis of the larger cist was directed due east and west, and had these inside measurements: Length $42\frac{1}{2}$ inches, breadth $23\frac{1}{2}$ inches, depth of cist 18 inches from the covering stones. Depth of cist from the surface of the ground was 3 feet to $3\frac{1}{4}$ feet. The side stones were 3 inches to 6 inches

thick, the end stones 4 inches thick. The four covering stones were approximately:

Width $27\frac{1}{2}$ inches, length 32 inches. 5 inches to $5\frac{1}{2}$ inches thick.							
..	18	..	..	23	..	4	.. thick.
..	20	..	..	18	..	3	.. "
..	6	..	..	17	..	14	.. "

The larger cist, according to the reports of the farm workers, had no contents.

The attention of the University was drawn to this discovery through the kindness and interest of Mr Stuart, of Ingleneuk, Stuartfield.

I should like to emphasise the importance of the discovery of these cists being reported before there is the possibility of their contents being damaged by casual visitors. Already this department possesses, probably, the finest collection of short stone cist skeletal remains in this or any other country, and we hope that, through the kindness of proprietors, either the collection may be increased or that, at least, the sites and remains may be carefully investigated and preserved.

R. D. LOCKHART.

4. REMAINS OF AN URNFIELD BURIAL AT MONKTON, AYRSHIRE.

Situated at an elevation between the 50- and the 100-foot contour level, the farm of Whiteside is about half a mile eastward of Monkton and on the north side of the roadway leading from that place to Tarbolton. The site of the discovery was in a field immediately to the east of the farm buildings and not far distant from the roadway indicated (fig. 1).

In November 1943 the ground in this particular field was being lowered in a major operation and large scrapers were being used for this purpose. These machines, passing over the soil, left broad smooth tracks on a sandy surface: thus it was easy to observe the evidence of any peculiarities. During these operations, Mr Earwacher, chief groundsman of Messrs Scottish Aviation Limited, when inspecting the surface left by the scrapers on one of their tracks noticed some fragments of pottery. Realizing these to be of archaeological value, he stopped the work in this particular area and reported the matter to his employers. It was clear from the fragments noted at the time that a group of at least seven cinerary urns had been destroyed -- unfortunately a number of the sherds disappeared and have not been recovered. This cluster of urns is shown marked with an X on the plan (fig. 2).

Continuing his investigations, Mr Earwacher located, about 20 feet to the north-west of the disrupted group, another urn buried in an inverted position. This vessel had been damaged, probably in the ploughing of the field, and part of the base was missing. It was carefully removed, without disturbing the contents, and was kept in a place of safety until it was trans-

prevented a thorough examination, and only a relatively small part of the archaeological subsoil was investigated. I was unable to define the limit of the cairn-like structure as it had apparently been disturbed in bygone times and stones from it had been scattered out of position. It was clear, however, that what remained *in situ* was composed of stones packed tightly to a depth of 12 inches. The stones were for the most part rounded and

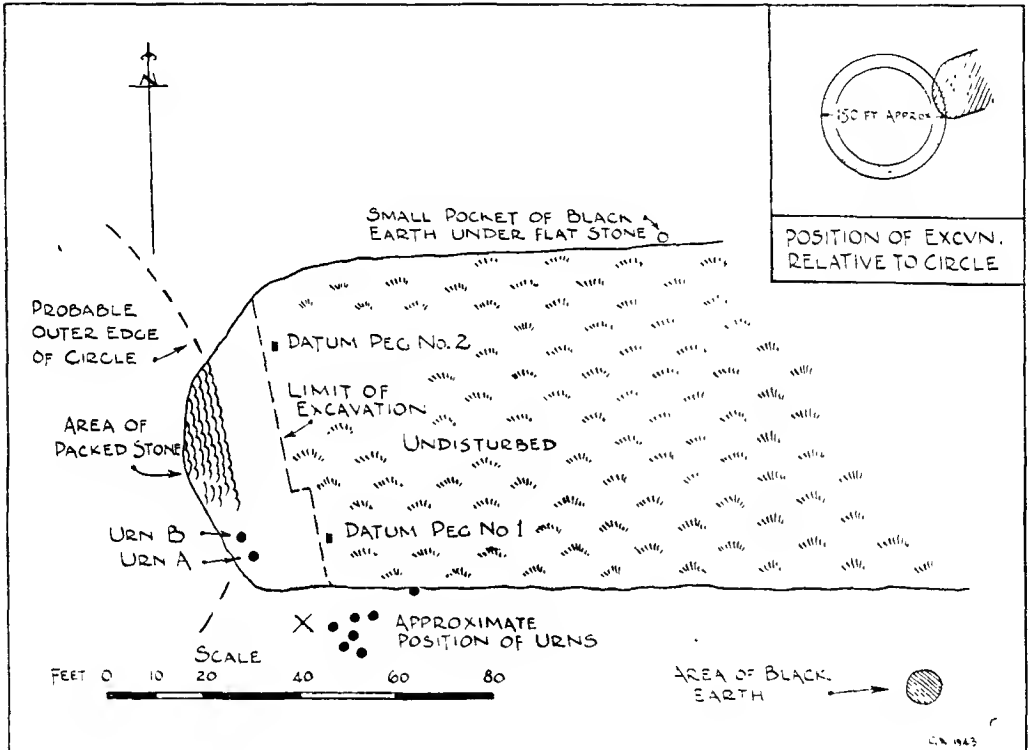


Fig. 2. Plan of Area examined.

were on the average about 6 inches in diameter; but some stones were larger, up to 12 inches cube. A small number of broken flint nodules which had been subject to heat were found in this area. An aerial photograph taken in August 1943 fortunately throws some light on the probable form of this construction. This photograph reveals a feature in the form of a circular ring emphasised on the ground by the parched condition of the grass. This ring was about 150 feet in diameter and about 15 feet wide over the band of stones. No evidence of a central structure was visible in the photograph.

Just outwith the periphery of what remained of the packed stone construction I recovered a further cinerary urn, which lay in close proximity to

urn "A." This vessel (B) was in an inverted position, and, as it lay buried only 15 inches below the surface of the field, the greater part of it had been lost by ploughing and little more than the rim was recovered. It was evident that at the time of the burial a pit 3 feet in diameter had been formed to receive the urn. The rim of the vessel was 2 inches above the undisturbed soil and round it had been deposited a number of (green?) pebbles. A further inspection of the undisturbed ground on the outside of the ring of the remains of the packed stones may lead to further discoveries in the urn field.

There are no records of similar discoveries in the locality except those mentioned in *A little Scottish World* by the Rev. Hewart, where it is stated that urns were found in 1797 in Low Monkton Hall. This name is presumably Low Monkton Hill, a farm formerly situated to the north of Monkton.

I am indebted to Mr Richardson, the Inspector of Ancient Monuments, for the help he has given me in compiling this short report.

G. WEBSTER.

REPORT ON THE URNS by THE DIRECTOR OF THE MUSEUM.

The fragments collected and brought to the museum represent at least four distinct urns.

Urn 1 (found at A) was filled with a solid mass of earth intermingled with a few small pebbles of quartz. Under the earth was a large quantity of incinerated bones which have been reported on by Professor Low. The Urn (Pl. X, 1) is made of a brownish clay. It now survives to a height of $11\frac{1}{2}$ inches and measures $11\frac{1}{4}$ inches in exterior diameter across the mouth, the base being wanting. It is of the bucket-shaped double-cordoned variety, the uppermost raised cordon, which is $3\frac{1}{2}$ inches from the rim, being almost vestigial and irregularly formed. The other cordon is $6\frac{1}{4}$ inches from the rim and, although more pronounced, is also distorted.

The decoration consists of a row of double- and triple-sided chevrons bordered above by two horizontal lines, between which are oblique lines, and below by a single incised line. The ornamentation has been carelessly executed with a pointed tool. Two inches from the edge inside the rim of the urn is a raised moulding which can be seen in the section, and between the rim and this moulding is a decoration consisting of an incised running zigzag.

Urn 2 (B) (Pl. X, 3) is represented by several fragments from the rim of a large cinerary urn of brownish clay with a black core, which, when complete, would have measured some 7 inches in diameter at the rim. The lip, internally bevelled, is $\frac{3}{8}$ of an inch wide and is decorated along the bevel with impressions of a very coarse twisted cord. On the exterior, immediately below the rim, is a band of decoration executed with the same coarse twisted cord. It consists of two horizontal lines with a rough lattice of similar impression between and intersecting them.

No. 3 (Pl. X. 4) is a fragment from a similar urn, reddish on the exterior, brown inside, but black in the core, $\frac{7}{16}$ of an inch thick. The rim is internally bevelled but not decorated on the inside. On the outside three horizontal impressions of a coarse twisted cord encircle the urn just below the rim. Below, part of a band of oblique lines executed in the same manner is visible.

No. 4 (Pl. X. 1) comes from the rim of a large urn probably of the cordoned type, possibly not more than 7 inches in diameter, the walls being nearly $\frac{3}{8}$ of an inch thick. It is made of coarse clay, but is hard fired and smoothed on the outer surface, which is brown in colour, the core being black. The rim is bevelled externally. On the bevel is a line of punctuations executed with a single blunt pointed tool, and a second line of punctuations immediately below the rim. Between this and the cordon came a band of incised decoration, perhaps a series of filled triangles.

REPORT ON CREMATED BONES FROM CINERARY URNS FOUND AT MONKTON, Ayrshire.

The bones from this burial by cremation are, as is usual, for the most part in small fragments. Quite a number of the larger pieces can be recognised as belonging to human skeletons, among which can be identified the following: eighty pieces of the flat bones of the cranium, six petrous bones containing the internal ear, three belonging to the right side and three to the left side, seven pieces of upper and lower jaws with tooth sockets, eleven fragments of ribs and fifteen of vertebræ, the articular surface of a shoulder blade, upper articular ends of six humeri, four small phalanges of hand, piece of socket of hip-joint, six pieces of upper and lower ends of femora, two pieces of tibiæ, and a fragment of calcaneum.

All these fragments of cremated bone reveal no trace of animal matter. Such cremated bone is very persistent and does not decay as do the bones in an inhumation interment. Bronze Age people were certainly experts in the art of cremation.

The total weight of cremated bone is eleven and a half pounds. At Loanhead of Daviot a series of cremation interments of one adult in a single cinerary urn varied from one pound to two and a half pounds. From this one might assume that the Monkton cremation represents at least six individuals.

From Cist No. 2, Monkton, Ayrshire.

Skeletal remains are very fragmentary and consist of twenty-eight small pieces mostly of long bones of skeleton, four pieces of flat bones of skull, and two fragments of upper jaw showing small tooth sockets, suggesting the remains of a young individual.

ALEXANDER LOW.

5. A BRONZE AGE FOOD VESSEL FROM FINNART HILL, S. AYRSHIRE.

In John Smith's *Prehistoric Man in Ayrshire* he records that at a short distance from a camp on the west top of Finnart Hill, in the direction of the entrance to Loch Ryan, there is a small mound of earth and stones, 9 paces in diameter and 3 feet 6 inches high. He also gives a sketch of the mound as it appeared to him fifty years ago.

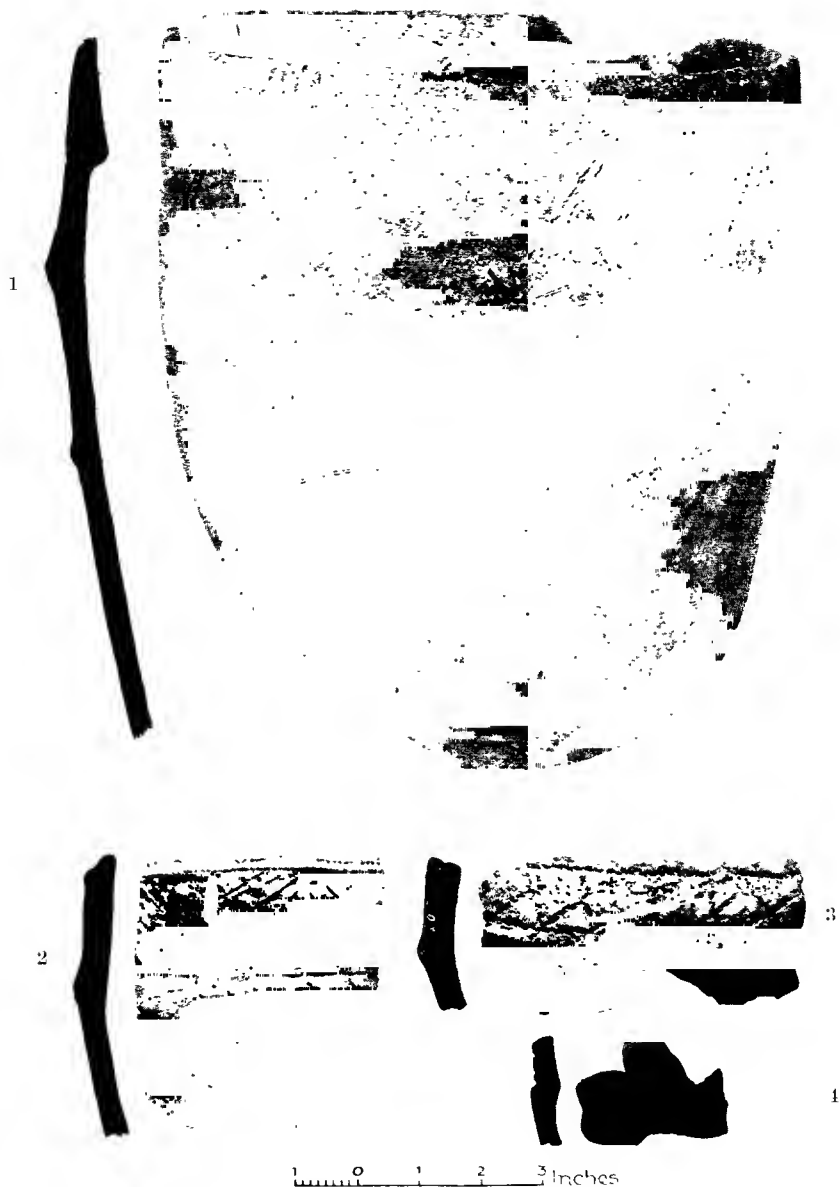
Recently Mr S. R. C. Symes of Belfast, while exploring the moor, chanced on the mound, and being interested in antiquarian lore, dug into it and proved it to be a cairn. About 2 feet below the surface the coverstone of a cist was exposed—a large block of greywacke, 6 feet long by 3 feet wide. This cover differed from the usual form, being sharply arched both inside and outside; the stone being 10 inches in thickness. Judging by its appearance, it may have been the naturally weathered cornice of a rock prised off from its seat.

The cist seems to have been built in a hollow of the natural rock which rises about 9 inches high on each side. The interior measurements of the cist are 3 feet by 2 feet, and 27 inches from the floor to the peak of the roof. The floor is the natural rock. In the S.W. corner this is raised about an inch, and forms a low platform, at the inner edge of which a Food Vessel urn was found tilted over. About an inch of clay covered the floor when the cist was opened, probably the dust that had filtered through the interstices of the walls during the centuries. When the urn was lifted, a clear impression was left slightly above floor level, suggesting that its fall had occurred at a period long after the entombment had taken place. The walls of the cist are of slabs, but these being too short to reach the coverstone, the gap between has been filled with small stones.

Nothing was found in the cist but the Food Vessel. In this there was only a little earth similar to that on the floor, and on the uncovered portion of the urn wall numerous spicules that dropped away at a touch. Its colour is a pleasing light brown. This may have been originally a little darker, for one part of the face shows a deeper tint than the rest, as if there had been a coating of slip now almost wholly peeled off. While cleaning the surface I found a tiny piece of almost transparent film scaled off at this point. The clay of which the urn is made is well sprinkled with specks of granite and mica, minerals that are common in this part of the country.

The urn (Pl. XI, 1) is a Food Vessel of Abercromby's type A, measuring $5\frac{1}{8}$ inches in extreme height, 6 inches across the mouth, and 7 inches in diameter at the greatest width of the bowl immediately above an inch-broad hollow or neck. In its profile there is a suggestion of a dwarf collared cinerary urn; but though it has a flat 3-inch base, yet the junction with the wall has a hint of the early round-bottomed bowl.

Like others of this Bronze Age type, the Finnart Food Vessel has an



Fragments of Cinerary Urns from Monkton.

G. WEBSTER.

URNS FROM MONKTON.

[To face p. 136.



1. Food Vessel from Finnart Hill.

R. S. G. ANDERSON.

FOOD VESSEL FROM FINNART HILL.



2. Blade from Craigsorry.

V. G. CHILDE.

BRONZE BLADE FROM CRAIGSCORRY.

[To face p. 137.

elaborate scheme of decoration, made up of horizontal bands covering the entire surface. The work has been roughly, not to say, slovenly done; but it remains quite impressive in its total effect. The detail is as follows:—

1. A steep interior rim— $\frac{3}{8}$ inch in depth—having a chevron design in “false relief” produced by alternating impressions of a small triangular tool.

2. On the face, round the mouth, an almost vertical band— $\frac{3}{8}$ inch in depth—ornamented with a series of left-slanting strokes.

3. Below this, on the expanding collar or rim, 4 parallel rings of punctuations made with a short square-toothed comb, leaving plain bands between. The square-toothed combs vary both in the size and number of the teeth. Those used on this urn seem to have been 9-toothed or 10-toothed, with sometimes a triangular tailpiece. Some of the combs seem to have been slightly curved.

4. A band of the false relief ornament similar to No. 1.

5. Two parallel rings of punctuations with the short-toothed comb as in No. 3, with plain band between.

6. Ring of vertically placed triangular stabs on strong ridge here surrounding the widest part of the urn.

7. Hollow neck or groove—1 inch from ridge to ridge—having round its centre a ring of boomerang-like figures, $\frac{3}{4}$ inch in length, touching at their ends, evidently impressed with a narrow triangular instrument—an enlarged edition of the zigzag ornament. Above and below this ring, on the falling and rising slopes of the neck, are series of stabs more or less grouped and assorted to the central figures.

8. A plain band surrounds the shoulder below the groove, to be followed by 4 parallel rings of punctuations, as in No. 3.

9. A broad ring of herring-bone design made with the short square-toothed comb, the large Vs closely dovetailed.

10. A final band of punctuations, similar to that of No. 3. The 4 rings seem to have been diverted upwards at one point to include, and probably help to disguise, a flaw or crack in the surface of the urn.

The shape of the urn, with the greatest diameter immediately above the central hollow, suggests an early date for its manufacture on Abercromby's typology. The style of the ornament, confined so much to punctuations with the square short-toothed comb in strings and zigzag and herring-bone effects, suggests a still-living remembrance of the Beaker technique. The maker of this urn may have lacked the skill to give his work the highest artistic finish, but he had still the craftsmanship to produce a strong, durable vessel, of much grace in spite of its shortcomings, lacking the coarseness and weakness to which the type was eventually to descend.

The Fimmart urn might belong to a period about 1500 B.C.

R. S. G. ANDERSON.

6. THE BRONZE BLADE FROM CRAIGSCORRY, NEAR BEAULY.

In January 1925 Dr Callander¹ reported the discovery of a long cist cut in the rock at Craigsorry, Beauly. It contained an extended skeleton together with an arrowhead and a slug knife of flint, both calcined, and fragments of bronze. He recognised that the four largest fragments of bronze fitted together and "formed part of a pointed implement with a stout, rounded midrib." He was in doubt "whether the two other pieces were remains of a second implement or had been broken off from the edge of the foregoing." On re-examining the group of relics in the course of a routine inspection of objects buried for security, I noticed that the two fragments did actually join on to the rest as Dr Callander had half surmised. Mr Darroch, the Museum's Technical Assistant, has very skilfully effected the junction so that a better idea of the weapon from this unusual grave can now be gained than was given by the earlier description and illustration.

The blade is preserved for a total length of only $4\frac{3}{4}$ inches (12.2 cm.), both the butt and the point (at least 2.4 cm. or 1 inch has been broken off) being missing. The maximum width of the blade preserved is 4.6 cm. ($1\frac{13}{16}$ inch), the edges having perished entirely. It is strengthened by a stout oval midrib 1.4 cm. wide and 0.6 cm. thick near the butt, but tapering to a width of only 0.9 cm., where it is broken off 10 cm. down in the direction of the point. At its extremity the midrib is only 0.4 cm. thick, but its width here cannot be determined precisely owing to the corrosion of the blade.

On each face at the widest surviving point, 0.9 cm. on either side of the midrib, the blade thickens to another ridge which forms one edge of a rounded groove 0.3 cm. wide from lip to lip. The two grooves, as Pl. XI. 2. shows, run parallel to the midrib and consequently converge as it contracts, themselves becoming narrower and shallower. They do not seem to have run the whole length of the blade, as the best preserved appears to fade out after being traced for 2.6 cm.

This grooved blade is unlike any other surviving relic from a burial deposit in Scotland, differing as much from the stout midrib daggers from Blackwaterfoot (Arran) and Wester Mains of Auchterhouse (Angus) as from the common flat round-heeled daggers, though it recalls the description of a blade found in the primary grave at Gilhorn, near Arbroath.² Grooves are notoriously a feature of the early Middle Bronze Age daggers of the Wessex culture, but occur also on some halberds—*e.g.* O'Riordain's No. 62 from Ireland³ and one from Auchingonl, Banffshire, recently acquired by the Museum. The Craigsorry blade, as preserved, is, however, considerably more slender than this and other undoubted halberds. Hence the new reconstruction of the blade does not suffice to settle the question, mooted by Dr Callander, whether the weapon should be classed as a dagger or a halberd. Only the butt or a length of both edges, sufficient to disclose asymmetry, could settle that issue.

V. G. CHILDE, *Director*.

¹ *Proc. Soc. Ant. Scot.*, vol. lix, pp. 204-8.

² *Archæologia*, vol. lxxxvi, p. 263.

³ *Ibid.*, vol. xxv, p. 460.

DONATIONS TO AND PURCHASES FOR THE MUSEUM,
1943-44.*Donations.*

(1) Scottish Communion Tokens from the collection of the late Mr Alfred W. Cox, F.S.A.Scot.

White Metal Disc inscribed "Pass to Methven Castle," $1\frac{1}{4}$ inch in diameter. Presented by Mr E. W. M. COX, The Cottage, Longforgan, Dundee.

(2) Three Microliths from Inchmarlo Cottage, Banchory, Deeside, measuring in length $1\frac{1}{8}$ inch, $1\frac{3}{32}$ inch, $\frac{7}{16}$ inch.

Two Microburins from the Culbin Sands, measuring $\frac{13}{16}$ inch and $\frac{19}{32}$ inch in length. Presented by Mr A. D. LACAILLE, F.S.A.Scot., F.S.A. (See current volume, p. 13.)

(3) Four Microliths from the Culbin Sands, measuring in length $\frac{5}{8}$ inch, $\frac{19}{32}$ inch, $\frac{1}{2}$ inch, $\frac{5}{8}$ inch. Presented by Dr S. H. DAWKES, Director of the Wellcome Historical Medical Museum. (See current volume, p. 13, by Mr A. D. Lacaille, F.S.A.Scot., F.S.A.)

(4) Playing Piece made of cetacean bone, measuring $1\frac{7}{8}$ inch in diameter and $\frac{7}{32}$ inch in thickness. It is ornamented on one side with an interlaced design. It was found in a cave on the east side of the Island of Rhum, Inverness-shire. Presented by LADY MONICA BULLOUGH, Warren Hill, Newmarket.

(5) Leaf-shaped arrowhead of chert measuring $1\frac{3}{8}$ inch in length by $\frac{13}{16}$ inch in breadth, from the Farm of Nearhouse, Ronsay, Orkney. Presented by Mr WALTER G. GRANT of Trumland, F.S.A.Scot.

(6) Polished Axe of feldstone measuring $4\frac{1}{4}$ inches in length, $2\frac{3}{8}$ inches across the cutting edge. Found at the site of new Parish Church at Carbost Beag, Minginish, Parish of Bracadale, Skye. Presented by Mr JOHN A. INGLIS, F.S.A.Scot.

(7) Relics from a group of Standing Stones at Fowls Wester, Perthshire. Presented by Mrs ALISON YOUNG, F.S.A.Scot. (See *Proceedings*, vol. lxxvii, pp. 174-9.)

(8) Four Valentines, dated about 1880. Presented by Miss J. M. HERBERTSON, 54 Craiglea Drive, Edinburgh.

(9) Carved wooden Toddy-bowl from Caithness (Pl. XII). The bowl measures $5\frac{1}{2}$ inches in height, $9\frac{3}{4}$ inches in diameter at the mouth, and 5 inches across the base. The rim is scalloped and banded on the outside with a brass band. The body of the bowl is decorated with a hunting scene carved in high relief—figures of men in Highland dress shooting deer. Between the figures are thistles and finally the hunter seated in a chair, smoking a pipe, with a bottle in one hand and a glass in the other,

the whole bordered by two cable mouldings. Below the hunting scene the foot, for the space of 1 inch, is decorated with hatched rectangles and triangles.

Thin metal Disc, $1\frac{3}{8}$ inch in diameter, inscribed KIRKCALDY OR DYSART FERRY CABIN NO in relief. St G 160 impressed. Obverse blank. Presented by Mr T. BARLOW, 16 Northfield Circus, Edinburgh.

(10) Beard-comb of horn made at Aberdeen Comb Works about 1880. The comb is semi-circular and measures $7\frac{5}{8}$ inches in breadth by $3\frac{3}{8}$ inches in width. Presented by Dr W. DOUGLAS SIMPSON, F.S.A.Scot., F.S.A.

(11) Beaker Urn of Clay found in a short cist at West Fenton, Drem, East Lothian. Presented by Mr JOHN A. MORRISON, West Fenton, Drem. (See current volume, p. 114.)

(12) Two Stone Axes found on the bed rock under 40 feet of clay in tin-mining works. The first measures $5\frac{1}{4}$ inches in length, $1\frac{3}{4}$ inch across the cutting edge, and $1\frac{5}{16}$ inch in thickness. Found at Kwi, Northern Nigeria. The second is $3\frac{13}{16}$ inches in length, $1\frac{7}{8}$ inch across the cutting edge, and $1\frac{1}{8}$ inch in thickness. Found at Myango, Northern Nigeria. Presented by Mr TOM STEWART, Plateau Province, Northern Nigeria, through Mr JAMES BARNETSON, F.S.A.Scot.

(13) Cut Paper Design with Armorial of Dundas impaled with Bruce of Kennet—second quarter 18th century. It measures 6 inches by $6\frac{1}{2}$ inches and is mounted in a wooden frame and protected with glass. Presented by Mr JAMES S. RICHARDSON, F.S.A.Scot.

(14) Two Stone Balls, 2 inches and $\frac{3}{4}$ inch in diameter respectively, and three fragments of coarse undecorated pottery, from a fortified site in course of destruction by Craigs Quarry on the Archerfield Estate between Dirleton and Gullane, East Lothian. Presented by Professor V. G. CHILDE, F.S.A.Scot.

(15) Fragment of a carved panel of sandstone (Pl. XIII), measuring $11\frac{1}{4}$ inches \times $10\frac{1}{2}$ inches \times $3\frac{1}{8}$ inches, which at one time formed part of the interior decoration of "Laird" Giffard's house in West Linton. The figures represent an archer huntsman with his hounds. Date c. 1670. (See *Proceedings*, vol. xlvii, p. 157.) Presented by Mr J. R. LOCKIE, F.S.A.Scot.

(16) Communion Token of the Church of Scotland, ETTRICK and BUCCLEUCH. Brook 400.

Communion Token of HASSENDEAN Church, suppressed in 1690. Brook 511. (See *Statistical Account of Roxburghshire*, p. 370.) Presented by Brigadier-General E. CRAIG-BROWN, D.S.O., F.S.A.Scot.

(17) Child's Cradle with hood and rockers. Presented by Miss MORAG MACLAGAN, F.S.A.Scot.

(18) Oval Pebble of granitic stone, perforated, measuring 4 inches long, 3 inches broad, and $1\frac{3}{8}$ inch in thickness. From Cellardyke, East Fife. Presented by Mr WILLIAM WHITE, Short Road, Anstruther, Fife.

(19) Witch's Cursing-bone (Pl. XIV, 2). consisting of the marrow bone of a deer or sheep, stained deep brown by peat, and fixed through a diamond-shaped piece of bog oak. It was formerly the property of a reputed witch living at the head of Glen Shira, Argyll. According to the local tradition, collected by the late Lady Elspeth Campbell, "When the 'witch' wanted to 'ill-will' one of her neighbours, she went out with her bone between sunset and cock-crow and made for the neighbour's croft. She did not go to the dwelling-house, however, but to the henhouse, and seized the hen that sat next the rooster (his favourite), thraved its neck, and poured its blood through the cursing-bone, uttering her curses the while." Presented by Miss HELEN J. WARWICK, Burnholme, Fochabers, Moray.

Purchases.

Silver Medal of the Grand Caledonian Curling Club, won by William Martin by 14 points, East Calder, 1853. Obverse, two rinks of players. Reverse, Grand Caledonian Curling Club, Instituted 25th July 1838. In centre. Won by William Martin by 14 points, East Calder, 1853. It has a circular ring for suspension by an orange and blue striped ribbon.

Socketed Bronze Axe with loop. The axe (Pl. XIV, 1) measures $4\frac{1}{4}$ inches in length by $2\frac{1}{8}$ inches in breadth across the expanded cutting edge, which is slightly recurved at both ends. The mouth of the socket is quadrilateral with rounded corners and measures 2 inches by $1\frac{5}{16}$ inch, the metal being $\frac{5}{16}$ inch in thickness. There is a slight moulding on the outer edge of the socket, and below this moulding the axe measures $1\frac{5}{8}$ inch in breadth by $1\frac{3}{16}$ inch in thickness. The loop is strong, 1 inch in length, and has an oval aperture. The raised seam formed by the joint of the mould, which is very prominent on both sides of the axe, has been hammered flat at the point where it crosses the loop. Both faces of the axe are decorated by six vertical concave grooves or flutings. The prominences between the flutings are not ridges in the proper sense of the word, but are merely incidental to the casting of the fluted decoration. Found in the Water of Leith during the building of the Dean Bridge in 1831-32.

Figured Stoneware Harvester's Bottle. The handle is interlaced and on a scroll is the name Peter Davidson. The figures consist of a sheaf of corn, thistles, a rose, a group of dancers with a fiddler, and a man seated on one barrel with his elbow on another holding a full tankard of ale in one hand and a tobacco pipe in the other. Height $9\frac{1}{2}$ inches.

DONATIONS TO AND PURCHASES FOR THE LIBRARY, 1943-44.

Donations.

- (1) The Annals of Forbes. By Robert Douglas, M.A., M.D., D.P.H.
A History of Peterhead. By James Thos. Findlay.
The Province of Mar. By W. Douglas Simpson, M.A., D.Litt.
The Town Council and The Merchant Guild (of Aberdeen). By Alexander Clark, J.P., Advocate.
Presented by Dr. W. DOUGLAS SIMPSON, F.S.A., F.S.A.Scot.
- (2) A Dental Survey of the British Isles and other Pamphlets. A Racial Survey of the British People. An Unusual Food Bowl from Melanesia. Professor Alfred Vogt, M.D. Extract from British Medical Journal. By Dr R. E. G. Armattoc. Presented by THE AUTHOR.
- (3) Old Time Stories of Kinross-shire and its Folk. By Robert S. Young, F.S.A.Scot. Presented by THE AUTHOR.
- (4) The Folk Lore of Cumberland, Northumberland, and Durham. By Helena Heslop Harrison, M.Sc. Presented by THE AUTHOR.
- (5) Ivory Powder Flasks from the Mughal Period. By Wolfgang Born, of Maryville College, Saint Louis, Missouri. Presented by THE AUTHOR.
- (6) The Trial of Rob Roy's Sons.
Black's Picturesque Tourist of Scotland.
Aberdeen Awa'. By George Walker.
The Road to Rannoch and the Summer Isles. By T. Ratcliffe Barnett.
The Scottish Tongue. By W. A. Craigie, John Buchan, Peter Giles, J. M. Bulloch.
The Arrow of Glenlyon. By A. A. W. Ramsay, M.A.
The Piper in Peace and War. By C. A. Malcolm, M.A.
The Pipes of War. By Seton and Grant.
Diary of a Scotch Gardener at the French Court at the end of the Eighteenth Century. By Thomas Blaikie. London, 1931.
Life and Campaigns of Alexander Leslie, First Earl of Leven. By Charles Sanford Terry, M.A. London, 1899.
Sir George Mac-Kenzie. His Life and Times, 1636-1691. By Andrew Lang. London, 1909.
St Kilda. By Norman Heathcote. London, 1900.
The Kirk in Scotland, 1560-1929. By John Buchan and George Adam Smith. Edinburgh, 1930.
Robert Louis Stevenson and the Scottish Highlanders. By David B. Morris, Town Clerk, Stirling. Stirling, 1929.
Prince Charles Edward Stuart, The Young Chevalier. By Andrew Lang. London, 1903.

- Scottish History from Contemporary Writers, No. 11. Mary Queen of Scots, 1542–1587. Arranged and Edited by Robert S. Rait. London, 1900.
- Out of the World or Life on St Kilda. By J. Sands. Edinburgh, 1878.
- Mary Queen of Scots. By Hilda T. Skae. Edinburgh, 1912.
- The History of the Paisley Grammar School from its foundation in 1576. By Robert Brown. Paisley, 1875.
- The Misty Isle of Skye. By J. A. MacCulloch.
- Autobiography of Dr Alexander Carlyle of Inveresk, 1722–1805.
- The Scott Originals. By W. S. Crockett.
- Sir Walter Scott. By James Hay.
- The Scot of the Eighteenth Century. By John Watson, D.D.
- Memoirs of a Highland Lady. Edited by Lady Strachey.
- The Scot in England. By John Herries McCulloch.
- St Margaret, Queen of Scotland. By Lucy Menzies.
- Greyfriars, Glasgow, 1738–1938. By John R. Lee.
- By-Ways of History. By James Colville, M.A., D.Sc.
- King James's Secret. Edited by Robt. S. Rait and Annie I. Cameron.
- The Scottish National War Memorial. With an Introduction by Sir Ian Hamilton.
- Celt, Druid, and Culdee. By Isabel Hill Elder.
- The Land of Scott. By J. Inglis Ker, F.S.A.
- Highways and Byways in Galloway and Carrick. By Rev. C. H. Dick.
- Sir Walter Scott. By Amy Cruse.
- Scottish Social Sketches of the 17th Century. By R. Menzies Fergusson, M.A., D.D.
- The History of the Reformation of Religion in Scotland. By John Knox.
- Trial of Captain Porteous. Edited by William Roughead, W.S.
- Highland Gatherings. By Sir Iain Colquhoun, Bart., D.S.O.
- Ruined Castles of Midlothian. By John Dickson, F.S.A.Scot.
- Royal Edinburgh. By Mrs Oliphant.
- Record of a Family of Engineers. By R. L. Stevenson.
- Abbotsford. Painted by Wm. Smith and described by W. S. Crockett.
- The Making of Abbotsford. By Mary Monica Maxwell-Scott.
- Royal Palaces of Scotland. Edited by R. S. Rait.
- Presented by JOHN ALLAN, M.A., F.S.A., F.S.A.Scot.
- (7) Society of Friends of Dunblane Cathedral, Volume IV, Part II, 1943. Presented by THE SOCIETY.
- (8) Early Plans of Perth. By Thomas McLaren, F.S.A.Scot. Reprint from Transactions of the Perthshire Society of Natural Science, Volume X, Part I. Presented by THE AUTHOR.
- (9) Royal Scottish Academy—One Hundred and Sixteenth Annual Report. Presented by COUNCIL.

(10) Proceedings of the Society of Antiquaries of Scotland. Volumes LVII to LXIX (13 in number). Presented by Miss R. CHRISTIE.

Purchases.

Old Irish and Highland Dress. By H. F. McClintock.

Irish Castles. By H. G. Leask.

A Short History of Haddington. By W. Forbes Gray, assisted by Jas. H. Jamieson.

The Welsh House. By Iorwerth C. Peate, M.A., D.Sc., F.S.A.



Carved Wooden Toddy Bowl from Caithness.



Sandstone Panel from the Laird Gifford's House.



2. Witch's Cursing Bone, Glen Shinn.



1. Socketed Bronze Axe from Dean
Bridge, Edinbrough.

MEMOIRS.

JAMES CURLE.

James Curle was the elder son of the well-known Melrose lawyer, Mr Alexander Curle, who was in turn the son of Sir Walter Scott's local factor and agent. He was educated at Fettes College and Edinburgh University, and it was in Edinburgh that he received his legal training. He then joined his father in practice at Melrose, and in course of time became himself the senior partner in the family firm of Curle and Erskine. It is not, then, surprising that one whose grandfather had been in close connection with Sir Walter Scott, the great Border antiquary of his day, and whose father had inherited a love for antiquity, should have been bred to archæological interests, like his even more versatile brother, Dr Alexander Curle, who is still happily with us. And while others will praise James Curle's geniality and kindness, his deep love for his native Melrose and for his country, his sagacity and acumen, his zeal for public service and his skill as an administrator, it is the present writer's privilege, as an old friend and admirer, to recall his place and standing in the archæological studies for which this Society most esteemed him.

His connection with archæological exploration and field-work first began after he had been elected a Fellow of this Society in 1899. His account of the brochs at Bow and Torwoodlee, which he contributed to the Society's *Proceedings*, still holds its place as the basic description of two of the most remarkable early monuments of the Lowlands; and it was in following these and kindred researches that James Curle and his brother came first to work with Sir George Macdonald and formed with him the Big Three of Scottish archæology. It may fairly be said that in the hands of that trio the study of ancient Scotland first became a comparative science, wherein all learning and all possibilities were ransacked for every item of information which could shed light upon local and immediate phenomena. It would, indeed, be difficult to estimate how much the work of each owed to the others, so intimate were their exchanges of views and so frequent their contacts; and it is no detraction from the two Curles to say that the standard in industry and breadth of learning was set by Sir George, who showed the whole world how first-class scholarship and humane learning could be combined with a busy administrator's life. Together, the three were to go from strength to strength, until the study of Roman Scotland in particular (wherein we must not forget Alexander Curle's work upon the great hill-fort of Traprain Law and its astonishing hoard of late Roman silver plate) took entirely new shape in their hands.

James Curle's share in the work was of particular significance and

distinction, and it was a matter of peculiar good fortune that it should have found a field of activity at his very doorstep. During the winter of 1904-5, ploughing at Newstead, in the Gutter-flat field, disclosed the presence of Roman buildings; and from February 1905 until May 1909, and again from December 1909 until September 1910, the Roman fort of *Trimontium*, long lost to knowledge, was investigated in detail. To understand the work aright, we must bear in mind the state of contemporary excavation of Roman forts. Of the two treatises then current, describing respectively Housesteads on Hadrian's Wall and Gellygaer in South Wales, one was in print and the other in preparation. At Gellygaer, except in the bath-house, only one period of structures was examined, albeit with exceptional ability and attention to detail. Housesteads, as we now know, must have exhibited four structural periods; but its excavator, like others before him, either went straight for the earliest coherent phase of the building under examination, chiefly ignoring other remains, or fused the remains of different periods into one plan, clear in general outline but hopelessly entangled in detail. James Curle would have none of this. He succeeded in distinguishing at Newstead no less than five successive structural phases, a feat which, having regard to the very reduced condition of the remains, must still excite our highest admiration. His claim that two of these were Flavian and three Antonine may well prove correct, doubts having been expressed only about the assignation of the third. When conditions permit, a long cross-section of the site, to check results, is required. But Curle's major distinction—of the Antonine and Flavian strata—enabled him to furnish Scottish archaeology for the first time with a great range of relics easily divisible between the two epochs, and so to lay the foundations for a typology of Roman objects found in Scotland. In this respect he was a pioneer. The distinction had, indeed, been made earlier on other sites, but never upon such a scale nor with such surety and finality. The study of Samian ware and of certain types of coarse ware was firmly based for the first time in the history of a Romano-British site. Anyone who reads the sections of his volume which describe the structures and the pottery, and then compares them with previous work, will see how James Curle's accurate and unflagging sobriety of description marked a new epoch in the study of the subject. His discussion was marked and illumined throughout with an astonishing grasp of the comparative material, and, be it added, by a broad and leisurely humanity wholly lacking in the Continental works upon which it drew but did not depend.

A report which contained so much as we have already estimated in cool judgment would have been in itself a notable achievement. But much more than this remained. In association with the fort there were some remarkable groups of rubbish pits, whose contents, for variety and social interest, form a collection quite unequalled upon any other Roman site in

these islands and only perhaps matched at Doura on the Euphrates outside them. Few weapons, armour or everyday items of equipment of the Roman legionary or of the Roman auxiliary soldier are not to be found in the rich and unexampled group of relics from these pits. In addition, there are quite exceptionally perfect parade helmets and other cavalry troopers' equipment, a wealth of tools and accessories and a mass of small objects, unsurpassed in social significance. Most excavators would have quailed at the task of describing them; so much knowledge in so many fields was required. But the dauntless character of James Curle's genius has already emerged. With industry and perseverance, guided by his high and steady gifts of imagination, the heavy task of collecting and classifying the comparative material was undertaken. Technical and linguistic ability and journeys to the Continent were involved, but all were taken in the author's stride. At a period when British archaeology seemed notable for its insularity, the patient energy of the Border lands, allied to the old humanity of Scottish education, produced a remarkable study, first delivered to the Scottish learned world in the form of Rhind Lectures, and then, with wisdom and foresight, published by this Society as a special volume. The Society was singularly fortunate in its choice of publishers, the well-known firm of MacLehose, who produced a book that took the archaeological world by surprise. Few had imagined that the remote *castellum* by the Tweed could provide the material for an entirely new and brilliantly illustrated chapter in Roman military history: nor had anyone expected that this material would be accompanied by detailed evidence of the life and social organisation of the fort. The title of the great new book, *A Roman Frontier Post and its People*, showed that this was the vision which had irradiated the composition of the work, with all its meticulous attention to detail. The work was accorded due recognition in Scotland, the University of Aberdeen conferring a doctorate of laws upon its author. Half the labour in more conventional study would have won him distinction in a wider world, but to James Curle the modest satisfaction of having added to knowledge was its own reward. Where special knowledge was required, he knew where to get it. The numismatic section of the book was in the hands of Sir George Macdonald, the human remains were studied by T. H. Bryce, and the animal or vegetable remains by experts in those particular fields. No report ever gave a better example of the conviction of the unity of knowledge which was the guiding light of the Curle-Macdonald combination.

It was not unnatural that the discovery of so many notable relics in metal, wood, and other perishable materials, the more liable to decay after their long sojourn below ground, should have raised acutely the question of their preservation. This was a field in which many Museum authorities in Britain had at that time much to learn: and James Curle's wide

acquaintance with Continental museums, in particular with that of Namur, had long made him aware of the fact that a technique of preservation was there available, especially for iron objects, which far outstripped in efficiency the methods employed in most British museums. It was due to his pertinacious advocacy that the Board of Trustees for the National Galleries of Scotland, of which he had become a Curator in 1908, made a grant for apparatus; while this Society furnished the late Director of the Museum, at that time the Assistant Keeper, among whose qualifications was numbered a professional knowledge of chemistry, a Gunning Fellowship for the purpose of studying the methods of preservation in vogue at the most advanced Continental museums. The National Museum of Antiquities was thus equipped with a Keeper whose technical abilities were second to none, and who was able successfully to protect from decay not only the objects from Newstead but many other valued treasures in the national collection whose very existence depended upon skilled treatment. But, without detracting from the powers and ability of Mr Edwards, it is right to say that the plan which made this very valuable development possible was matured in the brain of James Curle, for which the Society, not to say the nation itself, owes him a debt of gratitude.

It has already been explained that James Curle was a busy professional man, whose daily work and administrative labours made him widely known and respected throughout the Borders. This explains why the bulk of his archaeological labours remained concentrated in his local area, but it hides the fact that from 1925, when he became a Royal Commissioner for Historical Monuments, until his death, he gave valued and continual service to that body. There was, too, another general survey of exceptional value which he accomplished over many years of patient study. His work at Newstead made him peculiarly aware of the interplay of native and Roman cultures, and his thorough knowledge of the National Collections and the antiquarian literature of Scotland had taught him that this interaction affected every corner of the kingdom. It was not until 1932, however, that his reasoned study of the question appeared, in the form of one of the most learned papers that the Society has ever produced. This paper detailed ninety-nine finds of Roman objects, or groups of objects, from Scotland, discovered apart from Roman sites and therefore providing evidence of native trade with the Roman world. It was his last paper to the Society and a noble swan-song, always excepting, fitly enough, his *Memoir* of Sir George Macdonald. But many of his activities had remained unpublished, and some attracted little attention, like his fine study of the bronze leg from Milsington in the *Transactions* of the Berwickshire Natural History Club. He had a very remarkable collection of lantern slides, gathered together on the basis of his wide knowledge of Continental material, and it was his delight to exhibit a selection of these to the most varied

audiences. Soldiers of the Army of Occupation in Germany after the last war will remember his lectures well, as do many societies of all kinds throughout the length and breadth of the homeland. These discourses were marked by an unhesitating grasp of the subject, a clear delivery and an enthusiasm which communicated itself to his listeners.

The observation just made gives a hint of how lightly Dr Curle carried his mantle of learning. He was of a cheerful disposition, never more so than when visiting an excavation or discussing a new discovery: and the cheerfulness did not fade when the burden of years, deafness, and loneliness had hit him hard. He was most generous to younger men, kindly in advice and untiring in help, and he enjoyed nothing more than to discuss, by letter or word of mouth, an intricate problem, ever contriving to disguise the superior position to which his status and learning entitled him. The present writer owes him a wealth of gratitude in that respect, and in respect of generous gifts of offprints and slides. One more touch is worth record, for it somehow rounds off the man. Outside his own country, the Scot is not renowned for humour and merriment, though those who really know him know much otherwise. James Curle's humour had a whimsical form of its own. He was particularly well versed in the traditional ballads of the Border, whose vivid and rugged rhyme so long kept alive the virile Middle English tradition. It was his special delight to celebrate various Scottish excavations and their outstanding events in verses of the same style, circulated or recited amid a strictly limited group of friends, in the rich dialect of which he was an accomplished exponent. The writer can still recall the dry chuckle with which Sir George Macdonald used to savour the livelier passages.

But these sallies were confined to a select circle, outside which a modest gravity supervened. It may indeed be said that James Curle reflected his age, when to a local culture, deeply rooted in the humanities yet closely in touch with the romantic movement, there were added the liberal outlook of the industrial age and the advantages of easy cosmopolitan intercourse. The result was solid achievement, never divorced from the realities of life, sobered in the school of service and illumined by a spark of the divine. When the distinguished local company which attended James Curle to his grave laid him to rest, they sang the glorious things of Zion and the surety of redemption, reflecting quite another side of the man whom they were gathered to honour, but one which was the foundation of his life and character.

IAN A. RICHMOND.

ARTHUR J. H. EDWARDS,

Director of the Museum, 1938-1944.

Arthur J. H. Edwards joined the staff of the Society's Museum as Assistant Keeper in 1912, just before Alexander O. Curle succeeded Joseph Anderson as Director. The appointment proved a fortunate one for Scottish archaeology. Educated at Robert Gordon's College, Aberdeen, the new Keeper had received practical training as a member of the technical staff of the Physiology Department of the University of Edinburgh and, since 1906, as a preparer in the Royal Scottish Museum. At the time of his appointment our Museum was faced with new tasks, or rather, through the foresight and energy of James Curle and his brother, had been awakened to a fuller realisation of its function. It fell to Edwards to organise the laboratory, the minimum equipment for which the Curles' persistence and enthusiasm had extorted from the Treasury, and to preserve for all time the superb collection of perishable iron and leather relics yielded by the excavation of Newstead. To fit himself the better for the task, the new Assistant Keeper went to Germany to study the latest scientific methods for the preservation of these difficult materials. As a result of his studies he was able to initiate a new era in the conservation of the relics of Scotland's past, and the splendid iron work from Newstead, Traprain Law, and Viking graves, that I have just been re-arranging, constitutes enduring monuments to his skill. Indeed, Mr Edwards became an acknowledged expert in the preservation of antiquities, his services and advice being at the service of all.

During the last world war the Assistant Keeper served in the Mediterranean theatre, and made full use of this opportunity for studying the antiquities and monuments of Malta, Egypt, and Palestine, till he could resume his duties in Edinburgh now under the Directorship of J. Graham Callander.

An ever-increasing flood of relics from systematic excavations began to pour into the Museum. The Director and Assistant Keeper, with the aid of a single preparer, were faced with an unending struggle to preserve, house, and, as far as possible, display these important documents in an unsuitable and antiquated building without adequate space, equipment or staff. Nevertheless Edwards found time outside the Museum to carry on productive field work.

In 1922 he was awarded the Gunning Fellowship in order to conduct excavations in Galloway, and in this and succeeding years made valuable contributions from the field, especially to the knowledge of chambered cairns (Drannadow, 1922; Lower Dounreay, 1928) and Viking sites (Ackergill, Reay, Ballinaby). The series of excavation reports from his

pen that appeared in our *Proceedings* are marked by a mastery of comparative material, as well as clarity and accuracy. At the same time his keen eye for surface remains and monumental details secured recognition for many unnoticed documents of archæological history, notably the Pegasus carved on the lintel of an Earth-house at Crichton that had been for fifty years a place of pilgrimage for archæologists who had never noticed the Roman carving.

In other years the Gunning Fellowship was profitably used for travel in Scandinavia, Denmark, Germany, France, and Ireland, to study Museums and their contents. As a consequence Edwards was well equipped museographically to succeed Dr Callander as Director, which he did in March 1938. But in September of the following year the Museum was closed by order of higher powers before its new head with the assistance of a still newer and inexperienced Keeper had had any opportunity to attempt the re-arrangement that he and every intelligent visitor to the institution recognized to be essential, but which he knew all too well could never be really satisfactory with the existing physical framework. Moreover, by this time his health was breaking down, and after several premonitory attacks heart-failure caused his death suddenly in the afternoon as he was returning from the Museum.

The late Director's service to Scottish archæology is therefore not to be measured by his published works and still less by the achievements of the short term of his Directorship. Prolonged familiarity with the Museum's priceless collections during his long connection with the institution had given him an unique mastery of Scottish antiquities, and he generously made the treasures of his knowledge available to local and foreign students whose works on Scottish subjects owe more to his counsels than is always acknowledged. Continental travel and regular digestion of foreign periodicals had given him a wider knowledge of comparative material than was possessed by many of his Scottish colleagues since the spacious days of Abercromby and Munro. His careful study of museum arrangements on the Continent as well as in this country had inspired him with ideas for the display of the concrete remains of Scottish history that an unsuitable building and the outbreak of war eighteen months after his appointment prevented him from realising. But such arrangement as had been achieved in that gloomy and overcrowded edifice was in no small measure due to his unremitting exertions while he was Assistant Keeper.

V. GORDON CHILDE.

MEETINGS OF THE SOCIETY.

*Saturday, 5th February 1944, W. MACKAY MACKENZIE, M.A., D.Litt.,
Vice-President, in the Chair.*

A Ballot having been taken, the following were elected Fellows: William Adam, C.A.; William Scott Anderson, F.I.F.M.; William Reid Gardner, M.B.E., J.P.; Alexander Johnston, J.P.; Victor Norrie, J.P.; Ronald Cortney Sansome; John Stewart, M.A.

The following Communications were read:—

- I. Unrecorded Microliths from Tentsmuir, Deeside, and Culbin, by A. D. LACAILLE, F.S.A.Scot., F.S.A.
- II. Mace-heads of the "Cushion type" in Britain, by W. J. GIBSON, C.B.E., F.S.A.Scot.
- III. An Unrecorded Group of Chambered Cairns in Ross-shire, by Professor V. G. CHILDE, D.Litt., D.Sc., F.B.A., J.P.S.A., F.S.A.Scot.

*Saturday, 26th February 1944, W. MACKAY MACKENZIE, M.A., D.Litt.,
Vice-President, in the Chair.*

A Ballot having been taken, the following were elected Fellows: David D. McGregor; Archibald Milne, Jr., C.A.; John Wilson Rowan.

The following Communications were read:—

- I. Ancient Denominations of Agricultural Land, by ANDREW MCKERRAL, C.I.E., B.Sc., F.S.A.Scot.
- II. Notes on Scottish Incised Slabs, by FRANK A. GREENHILL, M.A.(Oxon.), F.S.A.Scot.

*Saturday, 25th March 1944, W. MACKAY MACKENZIE, M.A., D.Litt.,
Vice-President, in the Chair.*

A Ballot having been taken, the following were elected Fellows: Professor George F. Boddie, B.Sc., M.R.C.V.S.; R. W. Graham-Yooll, M.B., Ch.B.(Edin.); Charles Balfour Clephan Hunter.

The following Communications were read:—

- I. Excavations of Esslemont Castle, Aberdeenshire, by W. DOUGLAS SIMPSON, M.A., D.Litt., F.S.A.Scot.
- II. New Shetland Cross-Slabs, by JOHN STEWART, M.A., F.S.A.Scot., and PETER MOAR, Corresponding Member.

A description of the skeletal remains found in the cists, with the beakers, at West Fenton and Nunraw, was given by Professor Low of Aberdeen. The Society having been indebted to Professor Low, in the past, for many reports on such remains, took this opportunity of thanking him.

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